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Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

SECRET R-218/66
December 1966

REFUGEE COPY

This is the sixth group of items disseminated as part of NPIC/R-218/66, Southeast Asia, Activity Report, POL Facilities, North Vietnam. Sixteen items are included in this portion of the report, 6 newly reported sites and 10 updated items. The updated items are as follows:

Viet Tri Petroleum Products Storage, A1, A2, X-A1, X-A2;

Phu Van POL Storage, A21, A22, X-A21;

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Vinh Petroleum Products Storage, X-A23, X-A24;

Can Thon Petroleum Products Storage, B33, B34, X-B33;

Ha Noi Petroleum Products Storage Duc Noi (Area 2), B37, B38, X-B37;

Ha Noi Petroleum Products Storage Duc Noi (Area 4), B41, B42, X-B41;

Cu Van Petroleum Products Storage, B43, B44, X-B43;

Cu Van Petroleum Products Storage East UG, B45, B46, X-B45;

Phuc Loi Petroleum Products Storage Navy, B77, B78, X-B77; and

Tho Trang Petroleum Products Storage, B79, B80, X-B79.

Each new or updated page carries the date of the covering memo directly under the NPIC report number. NPIC will continue to disseminate new and updated items on a continuing basis as photography becomes available.

Declass Review, NIMA/DoD

**DIA HAS NO OBJECTION TO DECLASSIFICATION
AND RELEASE.**

DIA review(s) completed.

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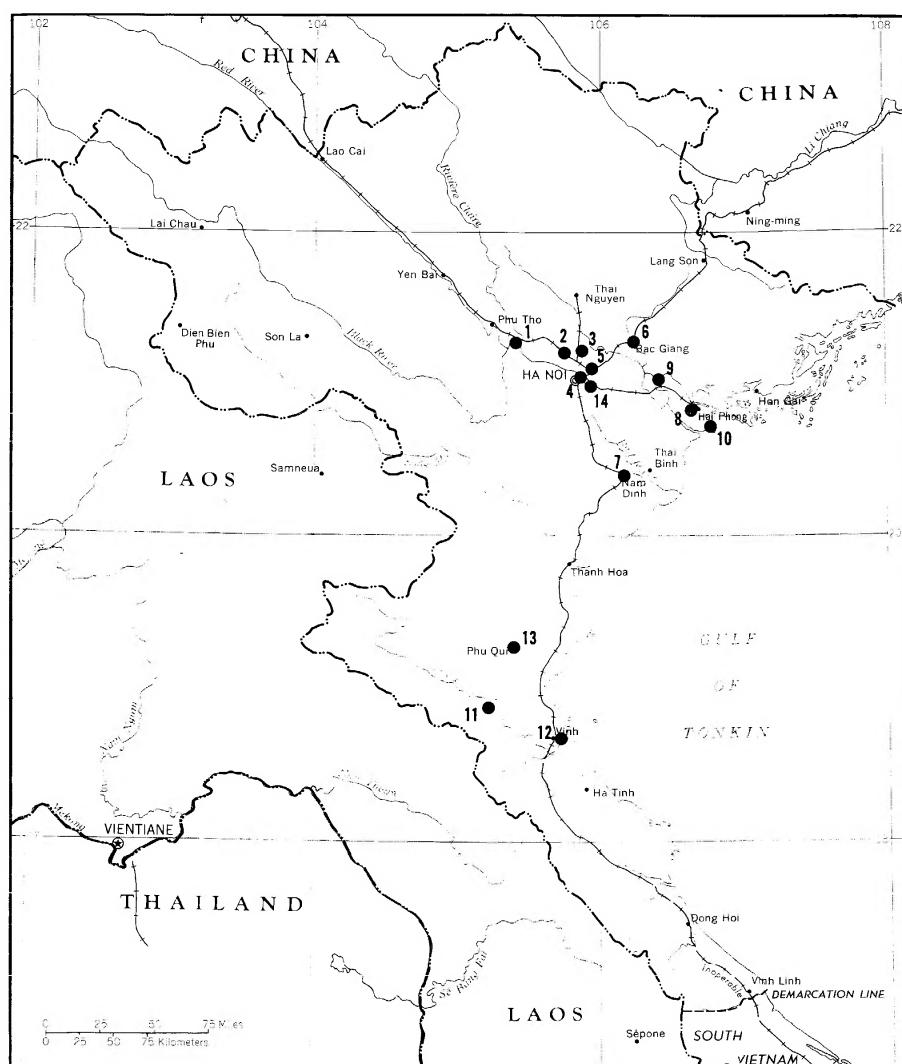
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16 NOVEMBER 1966

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KEY TO CATEGORY A
PERMANENT STORAGE AND HANDLING AREAS

1. Viet Tri Petroleum Products Storage
2. Phuc Yen Airfield POL Storage Area
3. Phuc Yen Petroleum Products Storage NNE UG
4. Ha Noi Petroleum Products Storage Thanh Am
5. Nguyen Khe Petroleum Products Storage
6. Bac Giang Petroleum Products Storage
7. Nam Dinh Petroleum Products Storage
8. Hai Phong Petroleum Products Storage
9. Duong Nham Petroleum Products Storage
10. Do Son Petroleum Storage
11. Phu Van POL Storage
12. Vinh Petroleum Products Storage
13. Phu Qui Petroleum Products Storage
14. Ha Noi/Gia Lam Airfield POL Storage Area

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WJ453547
UTM COORDINATES

2117N 10526E
GEOGRAPHIC COORDINATES

NAME: VIET TRI PETROLEUM PRODUCTS STORAGE

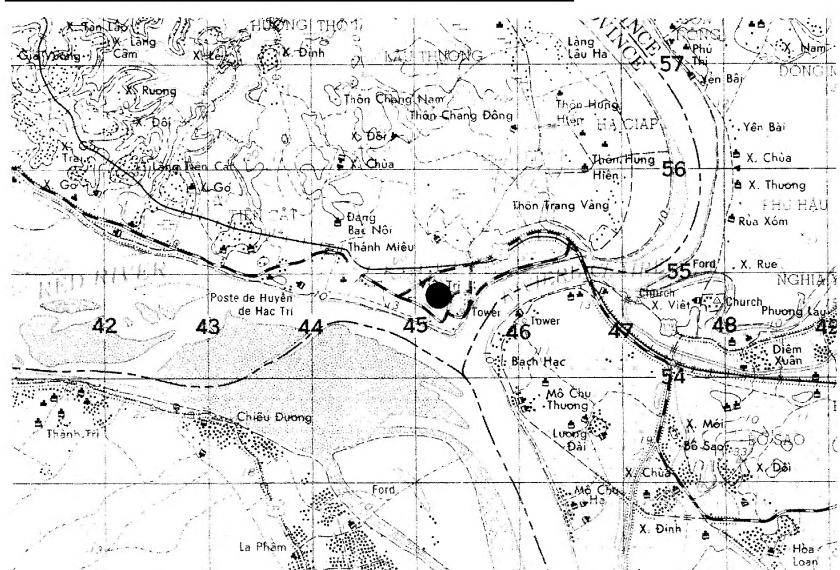
LOCATION: IMMEDIATELY SOUTH OF VIET TRI, AT THE CONFLUENCE OF THE RED AND CLAIRE RIVERS, 28 NM NW OF HA NOI

DESCRIPTION: PRIOR TO FIRST STRIKE, FACILITY CONTAINED 3 MEDIUM ABOVEGROUND,
2 MEDIUM UNDERGROUND CYLINDRICAL, AND 4 SERVICE TANKS. THE LARGE TANK OBSERVED
ON PHOTOGRAPHY [REDACTED] WAS REMOVED. PHOTOGRAPHY OF [REDACTED] VEALS 3 MEDIUM TANKS UNUSABLE DUE TO BOMB DAMAGE OR DISMANTLING; 1 UNDERGROUND TANK UNDAMAGED AND 1 WITH TOP SECTION UNCOVERED; AND 2 DESTROYED, 1 DAMAGED, AND 1 UNDAMAGED SERVICE TANK. APPROXIMATELY 450 DRUMS (PROBABLY
EMPTY) ARE STACKED NEAR TRANSSHIPMENT POINT.

ESTIMATED CAPACITY: PRE-STRIKE TANK 1,670 MT (EXCLUSIVE OF UNDERGROUND TANKS)
POST-STRIKE TANK 25 MT (EXCLUSIVE OF UNDERGROUND TANKS)

POST-STRIKE TANK
MAP REFERENCES: 23 MI (EXCLUSIVE OF QUEENSLAND TANKS)
AMS SERIES L701, SHEET 6074 1, 1ST ED, JUN 65 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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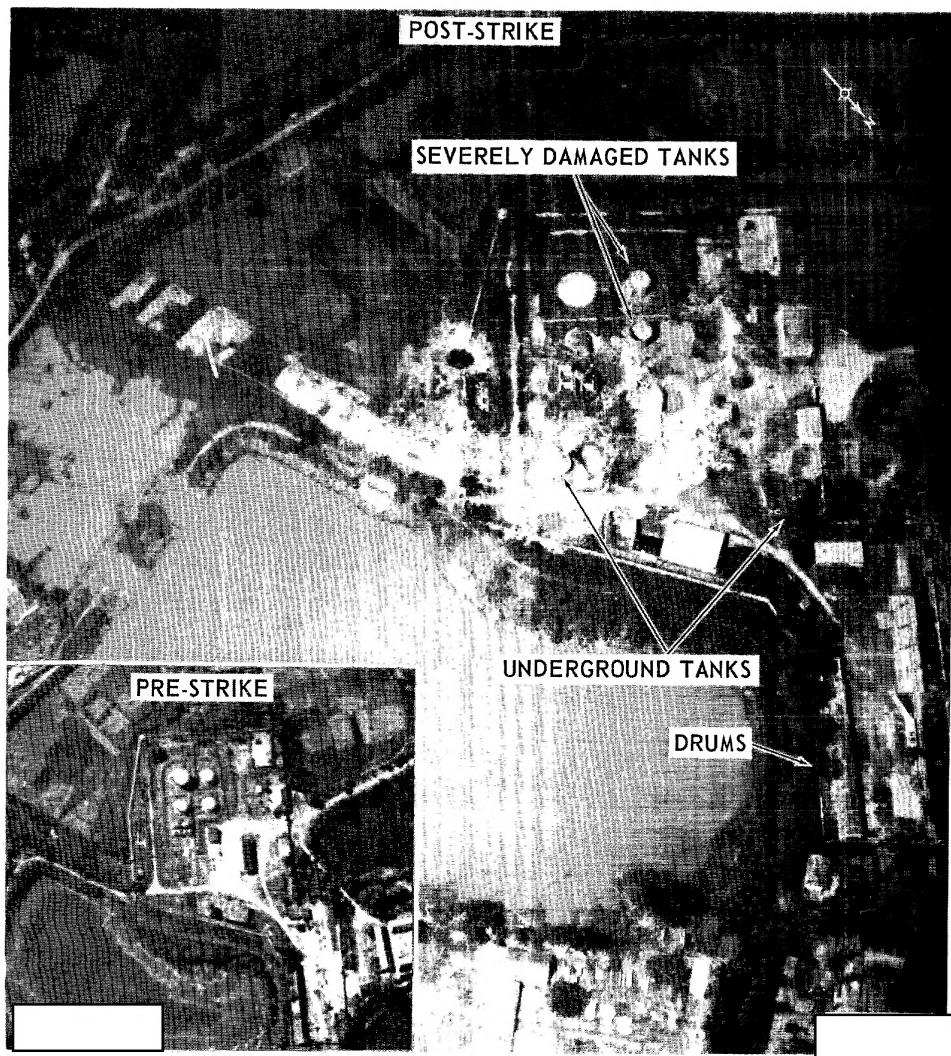
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UTM COORDINATES

VIET TRI PETROLEUM PRODUCTS STORAGE

2117N 10526E

GEOGRAPHIC COORDINATES



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	WJ836482 UTM COORDINATES	2114N 10548E GEOGRAPHIC COORDINATES
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NAME: PHUC YEN AIRFIELD POL STORAGE AREA

LOCATION: 0.8 NM NORTH OF PHUC YEN AIRFIELD

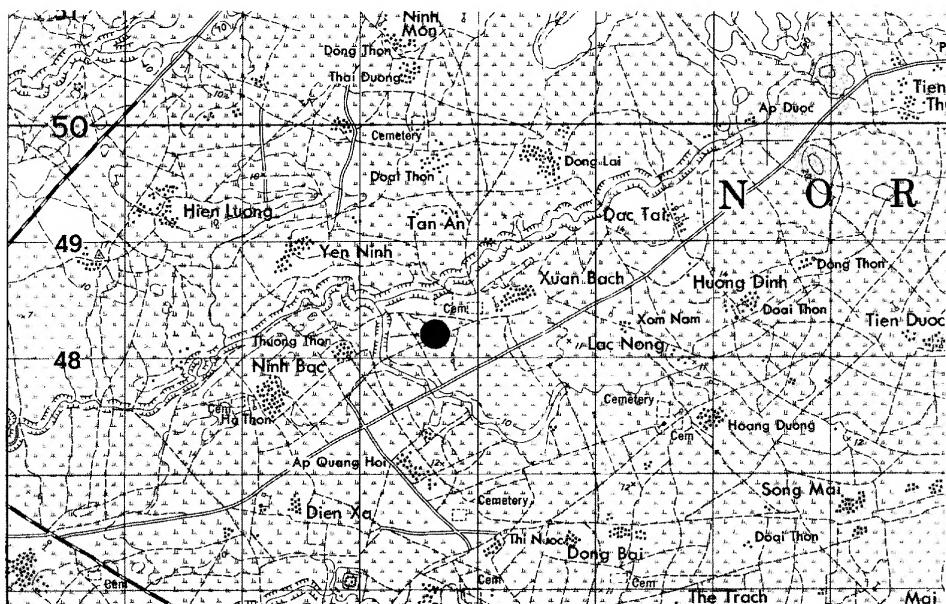
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DESCRIPTION: FACILITY CONTAINS 3 LARGE CYLINDRICAL UNDERGROUND TANKS, 3 BUNKERED PROBABLE POL TANKS, AND 7 SUPPORT BUILDINGS. AREA IS CONNECTED TO PHUC YEN AIRFIELD BY AN ALL-WEATHER ROAD.

ESTIMATED CAPACITY: TANK 4,200 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6174-I, 3D ED, DEC 59 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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UTM COORDINATES

DO SON PETROLEUM STORAGE

2042N 10647E
GEOGRAPHIC COORDINATES



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WF344841
UTM COORDINATES
1851N 10519E
GEOGRAPHIC COORDINATES

NAME: PHU VAN POL STORAGE

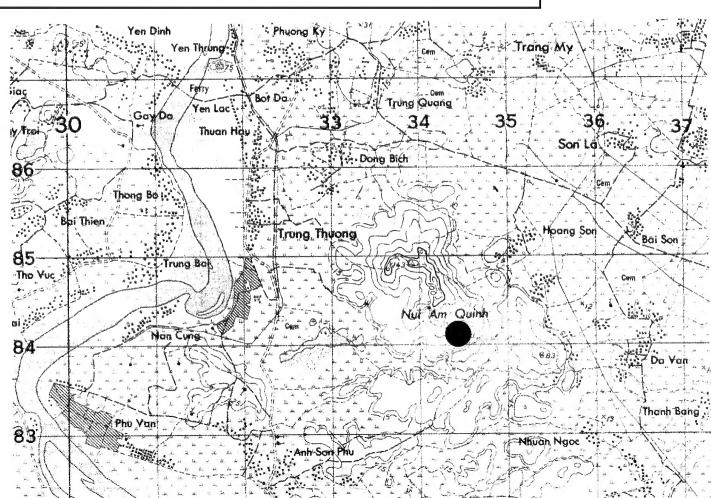
LOCATION: 2.3 NM ENE OF PHU VAN

DESCRIPTION: PHOTOGRAPHY [REDACTED] REVEALS 14 BUNKERS, EACH WITH 6 POL TANKS, AND 3 TANKS OBSERVED IN EXCAVATIONS. PHOTOGRAPHY [REDACTED] REVEALS 25X1 AREA ABANDONED WITH NUMEROUS CRATERS.

ESTIMATED CAPACITY: PRE-STRIKE TANK 1,000 MT, POST-STRIKE NONE

MAP REFERENCES: AMS SERIES L701, SHEET 6067-I, 1ST ED, JAN 61 (U)
AMS SERIES JCC(G) 1501, SHEET NE 48-7, 1ST ED, JUN 65 (U)

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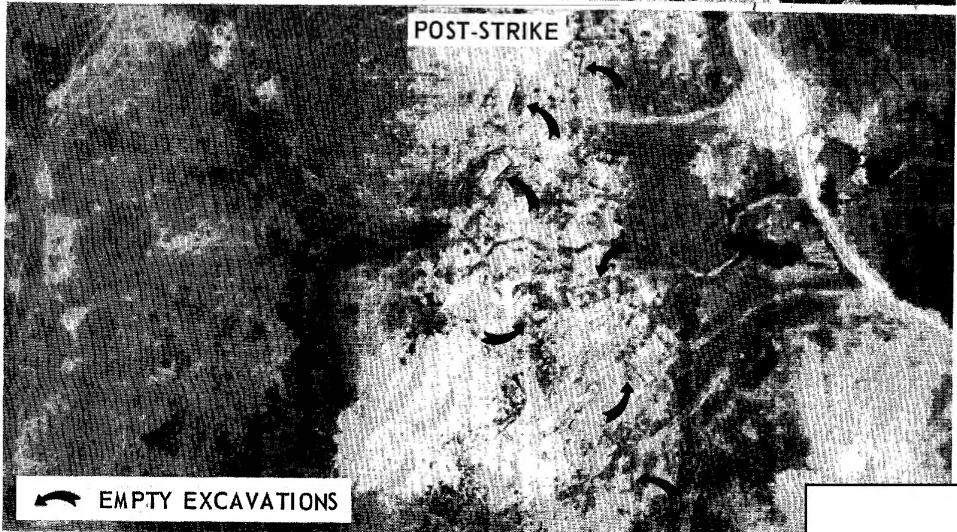
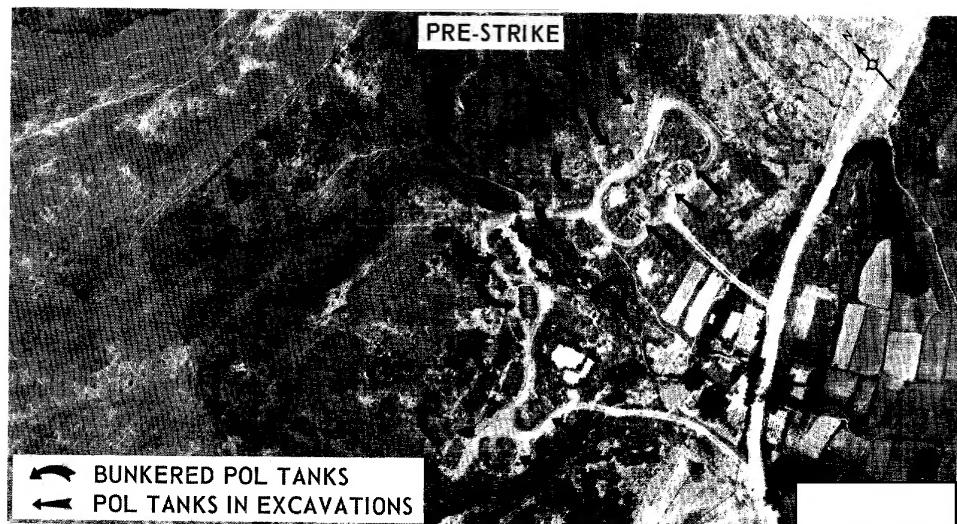
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PHU VAN POL STORAGE

1851N 10519E
GEOGRAPHIC COORDINATES



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[redacted]

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	WF762644 UTM COORDINATES	1840N 10543E GEOGRAPHIC COORDINATES
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NAME: VINH PETROLEUM PRODUCTS STORAGE

LOCATION: 2.8 NM EAST OF VINH ON NW BANK OF THE SONG CA

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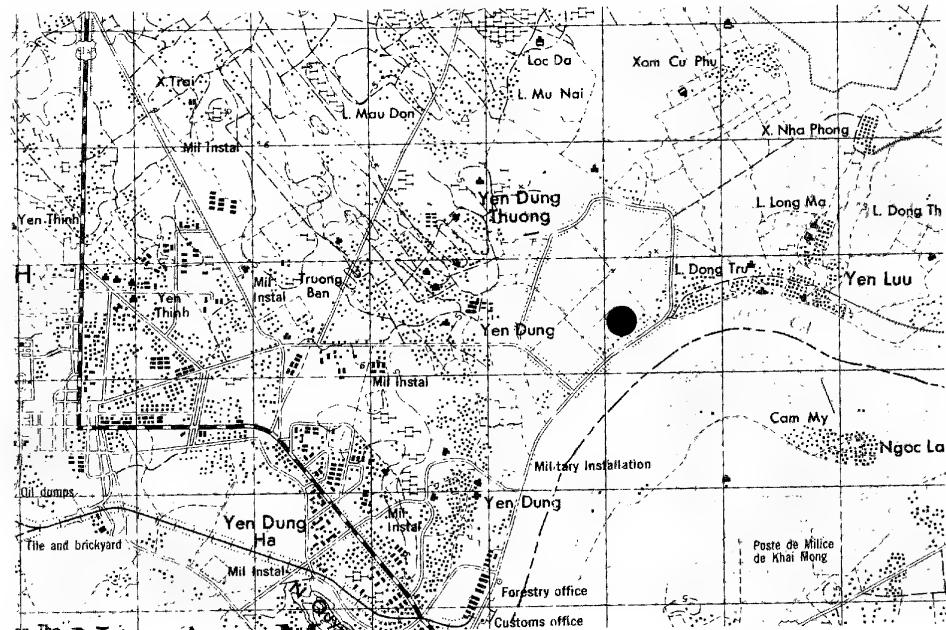
DESCRIPTION: PHOTOGRAPH [redacted] REVEALS 3 LARGE, 5 MEDIUM, AND 6 SMALL

ABOVEGROUND VERTICAL, 2 UNDERGROUND VERTICAL, AND 5 SERVICE TANKS. PHOTOGRAPHY
[redacted] REVEALS 8 PREVIOUSLY UNOBSERVED BUNKERED HORIZONTAL AND THE 2 UN-
DERGROUND VERTICAL TANKS UNDAMAGED, 1 LARGE AND 1 MEDIUM TANK DAMAGED, AND 2
LARGE, 4 MEDIUM, AND 6 SMALL VERTICAL AND 5 SERVICE TANKS DESTROYED.

ESTIMATED CAPACITY: PPE-STRIKE TANK 14,325 MT (EXCLUSIVE OF 8 BUNKERED HORIZONTAL TANKS)
POST-STRIKE TANK 1,600 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6146 III, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET NE 48-11, 1ST ED, JUN 65 (U)

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La Danh Petroleum Products Storage PUG	B1, B2
Van Lung Petroleum Products Storage UG	B3, B4
Van Lung Petroleum Products Storage West UG	B5, B6
Hoang Mai POL Storage Area	B7, B8
Ha Noi Petroleum Products Thi Cam	B9, B10
Bai Thuong Petroleum Products Storage UG Southeast	B11, B12
Son La Petroleum Products Storage	B13, B14
Thuong Thon Petroleum Products Storage UG	B15, B16
Ngoc Son Petroleum Products Storage PUG	B17, B18
Thai Lai Petroleum Products Storage	B19, B20
Yen Hau Petroleum Products Storage PUG	B21, B22
Thanh Lang Petroleum Products Storage PUG	B23, B24
Ha Noi Petroleum Products Storage UG Thanh Liet (Area 1)	B25, B26
Ha Noi Petroleum Products Storage UG Thanh Liet (Area 2)	B27, B28
Bang So Petroleum Products Storage PUG	B29, B30
Son Chau Petroleum Products Storage PUG	B31, B32
Can Thon Petroleum Products Storage	B33, B34
Ha Noi Petroleum Products Storage Duc Noy (Area 1)	B35, B36
Ha Noi Petroleum Products Storage Duc Noy (Area 2)	B37, B38
Ha Noi Petroleum Products Storage Duc Noy (Area 3)	B39, B40
Ha Noi Petroleum Products Storage Duc Noy (Area 4)	B41, B42
Cu Van Petroleum Products Storage	B43, B44
Cu Van Petroleum Products Storage East UG	B45, B46
Dao Quan Petroleum Products Storage East	B47, B48
Dao Quan Petroleum Products Storage West	B49, B50
Nam Dinh Petroleum Products Storage PUG	B51, B52
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Nui Tap Tinh POL Storage Area	B63, B64
Sac Le POL Storage Area	B65, B66
Phu Dong POL Storage Area	B67, B68
Thuan Le POL Storage Area	B69, B70
Phu Loc Petroleum Products Storage	B71, B72
Thanh Hoa POL Storage Area	B73, B74
Ba Don POL Storage Area	B75, B76
Phuc Loi Petroleum Products Storage Navy	B77, B78

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Tien Hoi Petroleum Products Storage	B87, B88
Dong Mai Petroleum Products Storage	B89, B90
Xom Lang POL Storage	B91, B92
Van Hoa POL Storage	B93, B94
Phu Lo Petroleum Products Storage NNE Underground	B95, B96
Jaune Island POL Storage	B97, B98
Co Nhue Hoang POL Storage	B99, B100
Quang Suoi Petroleum Products Storage	B101, B102
Trung Phu Petroleum Products Storage	B103, B104
Gia Hoa Petroleum Products Storage PUG	B105, B106
Bai Chay Petroleum Products Storage	B107, B108
Vinh Petroleum Products Storage Yen Thinh	B109, B110
Ba Don Petroleum Products Storage UG West	B111, B112
Bac Ninh Petroleum Products Storage	B113, B114
Vinh Petroleum Products Storage PUG Xuan Yen	B115, B116
Tri Binh Petroleum Products Storage	B117, B118
Thuong Lam Petroleum Products Storage	B119, B120
Cau Cong Petroleum Products Storage	B121, B122
Tung Tu Petroleum Products Storage UG	B123, B124
Don Son Petroleum Products Storage	B125, B126
Quy Khe Petroleum Products Storage	B127, B128
Iran Xa Petroleum Products Storage	B129, B130
Thanh Hoa Petroleum Products Storage	B131, B132
Tram Du Petroleum Products Storage	B133, B134
Luc Nong Petroleum Products Storage	B135, B136
Thai Nguyen Petroleum Products Storage	B137, B138
Tien Nong Petroleum Products Storage	B139, B140
Vinh Petroleum Products Storage PUG Ben Thuy	B141, B142
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Vinh Petroleum Products Storage PUG Yen Bai	B145, B146
Hoang Pha Petroleum Products Storage	B147, B148
Kien An Petroleum Products Storage	B149, B150
Phu Thi Petroleum Products Storage	B151, B152
Phuc Yen Petroleum Products Storage	B153, B154

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Tram Bach Petroleum Products Storage	B159, B160
Nam Lo Petroleum Products Storage	B161, B162
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KEY TO CATEGORY B

1. La Danh Petroleum Products Storage PUG
2. Van Lung Petroleum Products Storage UG
3. Van Lung Petroleum Products Storage West UG
4. Hoang Mai POL Storage Area
5. Ha Noi Petroleum Products Thi Cam
6. Bai Thuong Petroleum Products Storage UG Southeast
7. Son La Petroleum Products Storage
8. Thuong Thon Petroleum Products Storage UG
9. Ngoc Son Petroleum Products Storage PUG
10. Thai Lai Petroleum Products Storage
11. Yen Hau Petroleum Products Storage PUG
12. Thanh Lang Petroleum Products Storage PUG
13. Ha Noi Petroleum Products Storage UG Thanh Liet (Area 1)
14. Ha Noi Petroleum Products Storage UG Thanh Liet (Area 2)
15. Bang So Petroleum Products Storage PUG
16. Son Chau Petroleum Products Storage PUG
17. Kep Petroleum Products Storage
18. Ha Noi Petroleum Products Storage Duc Noi (Area 1)
19. Ha Noi Petroleum Products Storage Duc Noi (Area 2)
20. Ha Noi Petroleum Products Storage Duc Noi (Area 3)
21. Ha Noi Petroleum Products Storage Duc Noi (Area 4)
22. Cu Van Petroleum Products Storage
23. Cu Van Petroleum Products Storage East UG
24. Dao Quan Petroleum Products Storage East
25. Dao Quan Petroleum Products Storage West
26. Nam Dinh Petroleum Products Storage PUG
27. Thai Nguyen Petroleum Products Storage PUG South
28. Phuc Yen Airfield POL Storage Area 1
29. Phuc Yen Airfield POI, Storage Area 2
30. Xom Duong Quan Petroleum Products Storage UG East
31. Xom Duong Quan Petroleum Products Storage UG
32. Nui Tap Tinh POL Storage Area
33. Sac Le POI, Storage Area
34. Phu Dong POL Storage Area
35. Thuan Lc POL Storage Area
36. Phu Loc Petroleum Products Storage
37. Thanh Hoa POL Storage Area
38. Ba Don POL Storage Area
39. Phuc Loi Petroleum Products Storage Navy

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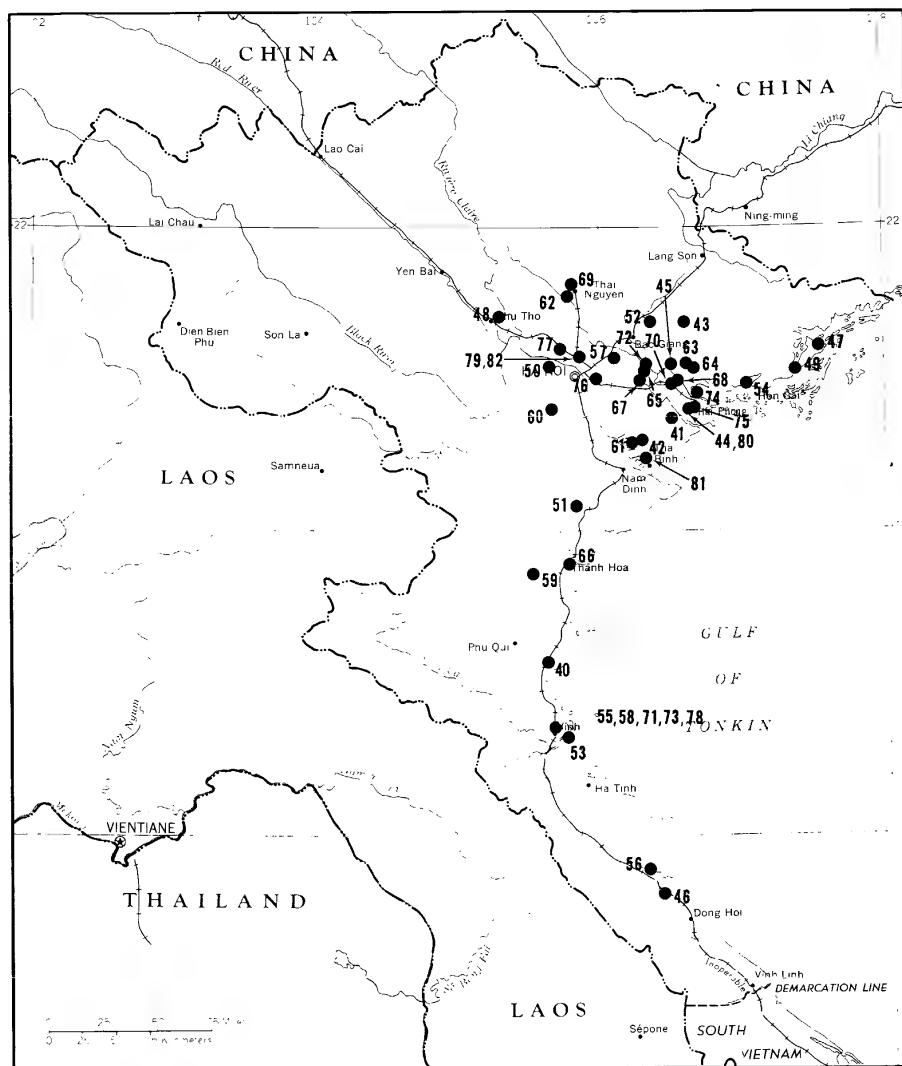
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DISPERSED STORAGE AREAS (CONTINUED).

40. Tho Trang Petroleum Products Storage
41. Ninh Giang Petroleum Products Storage
42. Viet Yen Petroleum Products Storage
43. Kep Ha Petroleum Products Storage
44. Tien Hoi Petroleum Products Storage
45. Dong Mai Petroleum Products Storage
46. Xom Lang POL Storage
47. Van Hoa POL Storage
48. Phu Lo Petroleum Products Storage NNE UG
49. Jaune Island POL Storage
50. Co Nhue Hoang POL Storage
51. Quang Suoi Petroleum Products Storage
52. Trung Phu Petroleum Products Storage
53. Gia Hoa Petroleum Products Storage PUG
54. Bai Chay Petroleum Products Storage
55. Vinh Petroleum Products Storage Yen Tinh
56. Ba Don Petroleum Products Storage UG West
57. Bac Ninh Petroleum Products Storage
58. Vinh Petroleum Products Storage PUG Xuan Yen
59. Tri Binh Petroleum Products Storage
60. Thuong Lan Petroleum Products Storage
61. Cau Cong Petroleum Products Storage
62. Tung Tu Petroleum Products Storage UC
63. Don Son Petroleum Products Storage
64. Quy Khe Petroleum Products Storage
65. Tran Xa Petroleum Products Storage
66. Thanh Hoa Petroleum Products Storage
67. Tram Du Petroleum Products Storage
68. Luc Nong Petroleum Products Storage
69. Thai Nguyen Petroleum Products Storage
70. Tien Nong Petroleum Products Storage
71. Vinh Petroleum Products Storage PUG Ben Thuy
72. Chi Linh Petroleum Products Storage
73. Vinh Petroleum Products Storage PUG Yen Dai
74. Hoang Pha Petroleum Products Storage
75. Kien An Petroleum Products Storage
76. Phu Thi Petroleum Products Storage
77. Phuc Yen Petroleum Products Storage
78. Vinh Petroleum Products Storage North UG
79. Mach Trang Petroleum Products Storage
80. Tram Bac Petroleum Products Storage
81. Nam Lo Petroleum Products Storage
82. Ha Noi Petroleum Products Storage Duc Noy (Area 5)

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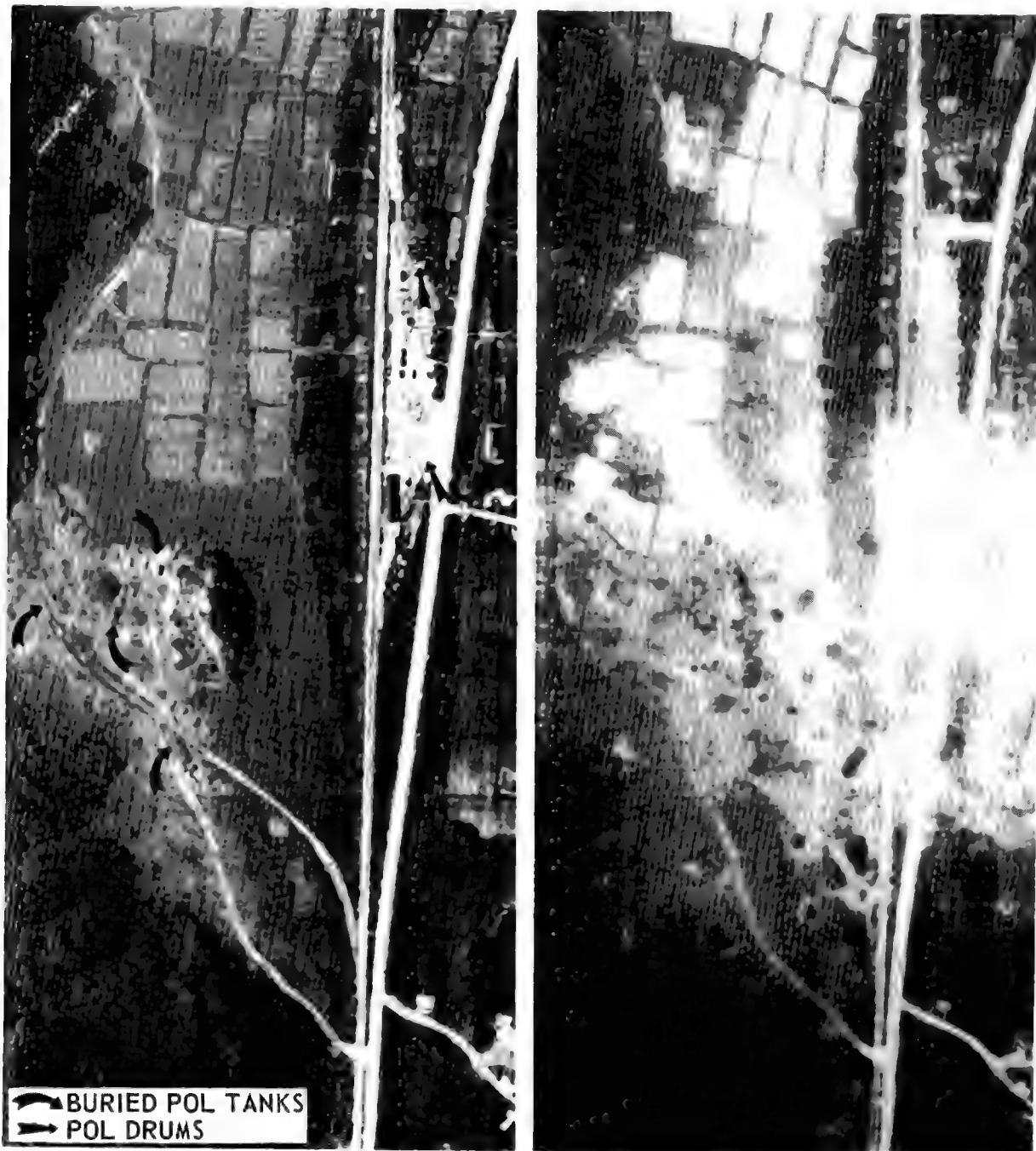
SON CHAU PETROLEUM PRODUCTS STORAGE PUG

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1918N 10543E

GEOGRAPHIC COORDINATES



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XJ359660
UTM COORDINATES

2123N 10618E
GEOGRAPHIC COORDINATES

NAME: CAN THON PETROLEUM PRODUCTS STORAGE

LOCATION: 0.8 NM NORTH OF CAN THON, 2.2 NM EAST OF KEP AIRFIELD, ON
NE SIDE OF ROUTE 181

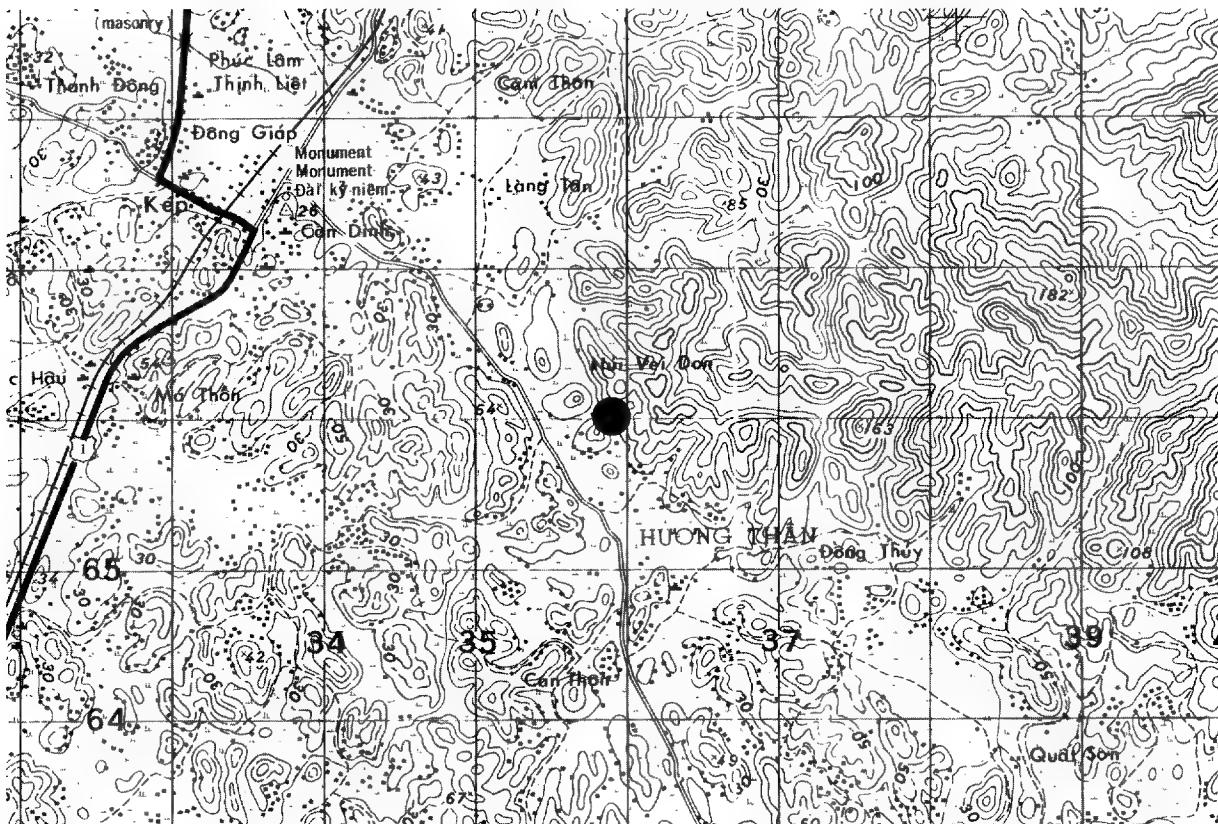
DESCRIPTION: FENCE-SECURED ROAD-SERVED AREA LOCATED AMONG 3 LOW HILLS
CONTAINS 6 ROWS OF LARGE BUNKERED TANKS WITH A TOTAL OF 120 TANKS. TWO
OF THE TANKS HAVE BEEN UNCOVERED SINCE PHOTOGRAPHY [REDACTED] AT
LEAST 500 DRUMS ARE OBSERVED IN NW PART OF AREA.

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ESTIMATED CAPACITY: TANK 3,000 MT DRUM 100 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6251 I, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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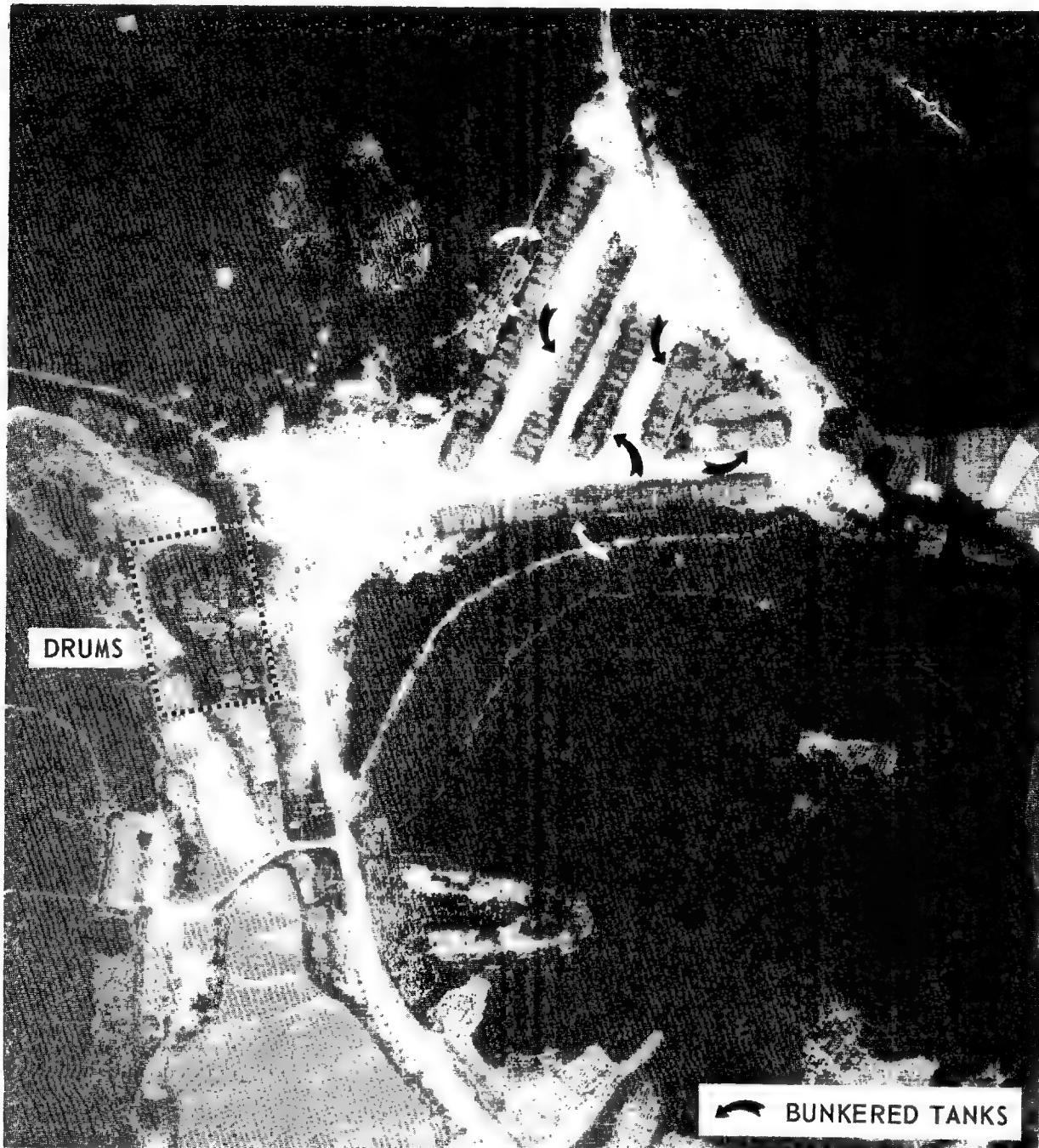
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CAN THON PETROLEUM PRODUCTS STORAGE

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UTM COORDINATES

2107N 10552E
GEOGRAPHIC COORDINATES

NAME: HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 1)

LOCATION: IMMEDIATELY EAST OF X. BAI, 0.7 NM SSW OF DUC NOI, AND 6.3 NM NORTH OF HA NOI

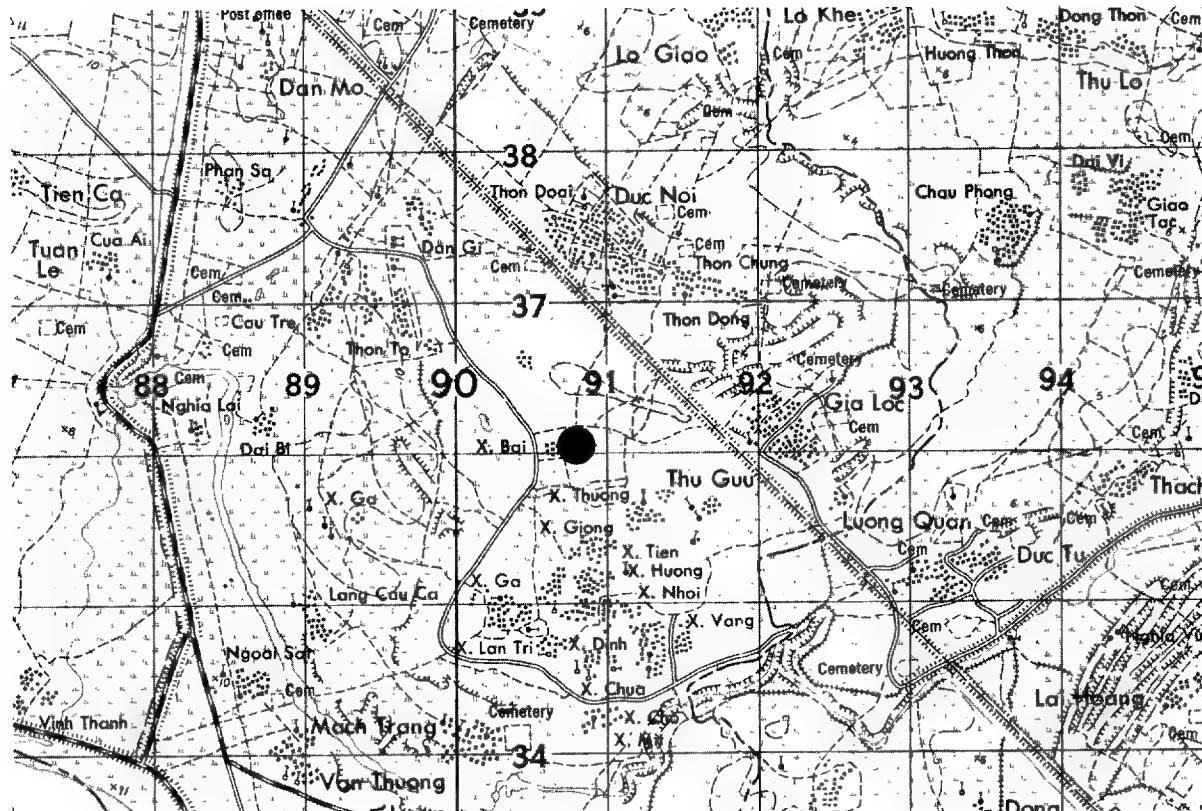
DESCRIPTION: AREA CONTAINS 14 LARGE BURIED TANKS, 9 PROBABLY STANDARD BURIED TANKS, 1 EXCAVATION, APPROXIMATELY 3,000 THIRTY-GAL-TYPE DRUMS, AND APPROXIMATELY 1,750 FIFTY-FIVE-GAL-TYPE DRUMS.

ESTIMATED CAPACITY: TANK 458 MT DRUM 650 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6174 II, 3DED, APR 63 (U)

25X1D AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

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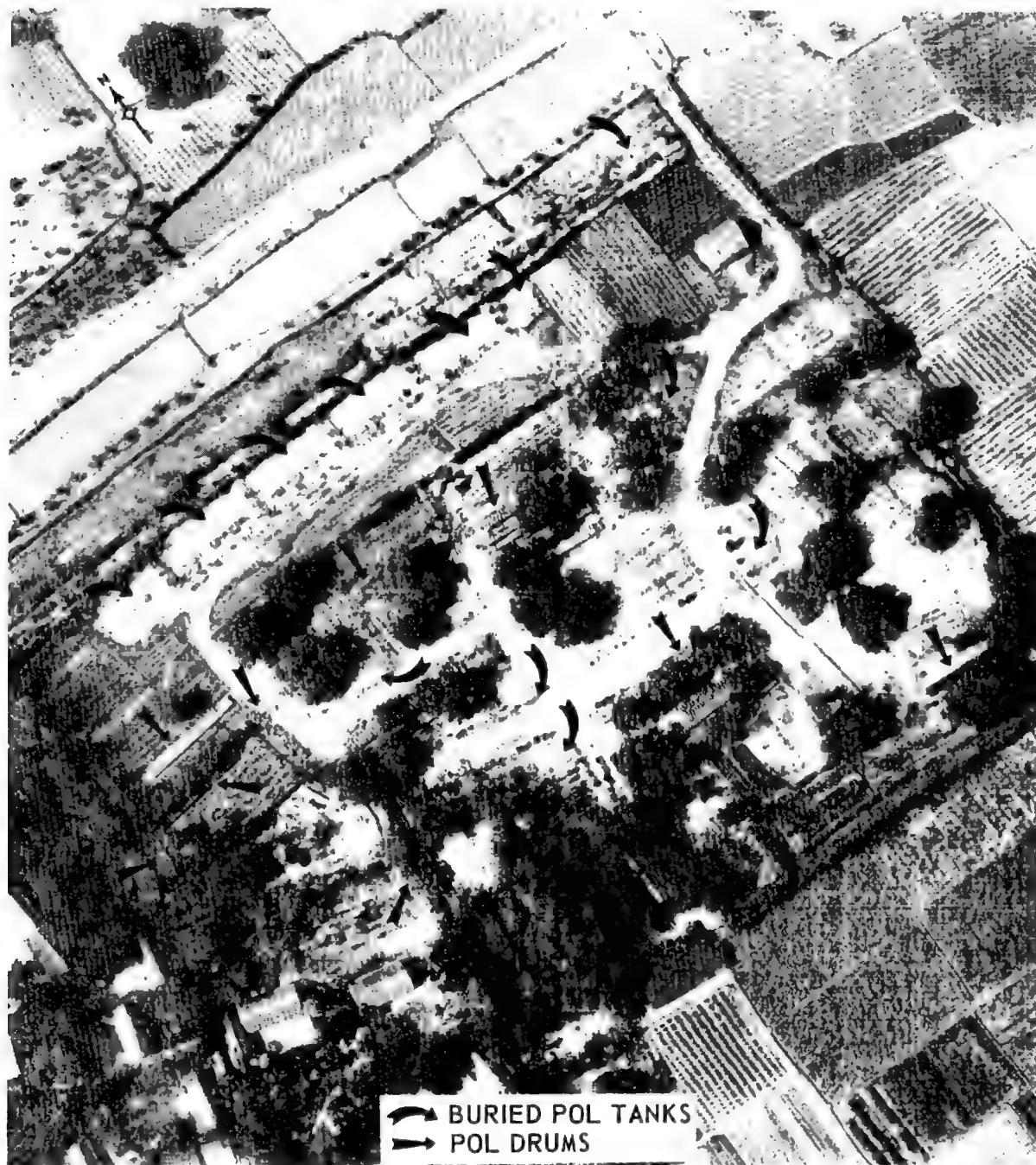
HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 1)

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UTM COORDINATES

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UTM COORDINATES2107N 10552E
GEOGRAPHIC COORDINATES

NAME: HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 2)

LOCATION: IMMEDIATELY NORTH OF X. BAI, 0.7 NM SSW OF DUC NOI, AND 6.4 NM NORTH OF HA NOI

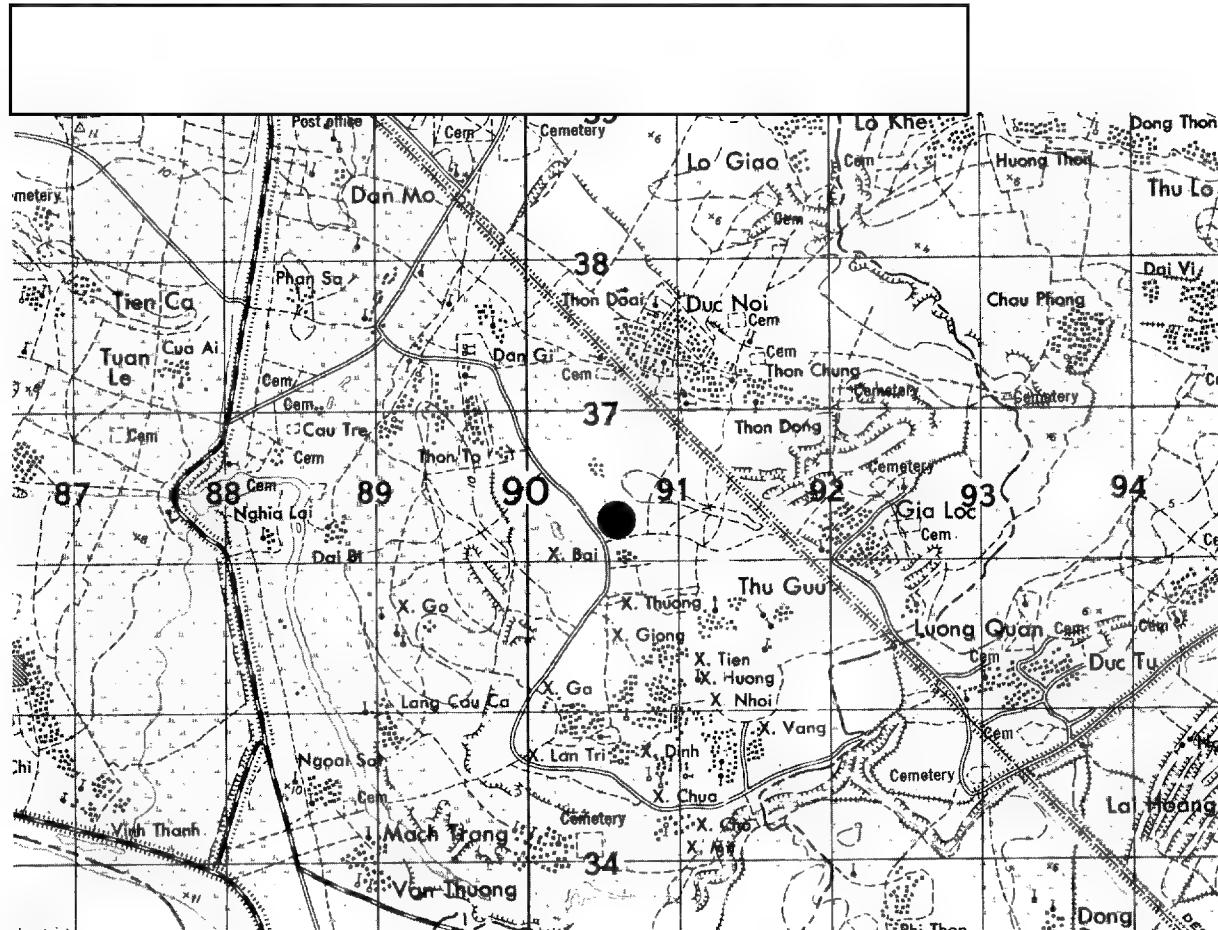
DESCRIPTION: AREA, OBSERVED BEING ESTABLISHED ON PHOTOGRAPHY [REDACTED] CONTAINED 4 LARGE BURIED AND 3 LARGE UNBURIED TANKS, 11 STANDARD BURIED AND 12 STANDARD UNBURIED TANKS, AND 7 LARGE AND 6 STANDARD EXCAVATIONS. PHOTOGRAPHY [REDACTED] REVEALS 13 LARGE BURIED, 39 STANDARD BURIED, AND 8 SMALL BURIED TANKS.

ESTIMATED CAPACITY: TANK 849 MT

25X1

MAP REFERENCES: AMS SERIES L7014, SHEET 6151 II, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

25X1D



25X1C

B37

Approved For Release 2003/08/04 : CIA RDP78B04560A005500010032-3

25X1

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

CONFIDENTIAL

R-218/66
1 December 1966

25X1

25X1C



WJ906362
UTM COORDINATES

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 2)

2107N 10552E
GEOGRAPHIC COORDINATES



25X1

25X1

25X1C

CONFIDENTIAL

E38

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

R-218/66

25X1A

WJ902366
UTM COORDINATES

2107N 10552E
GEOGRAPHIC COORDINATES

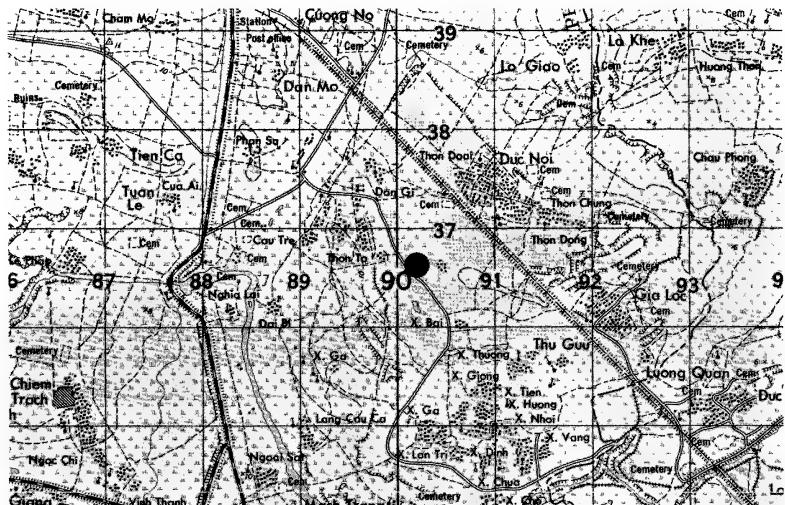
NAME: HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 3)

LOCATION: 0.6 NM SW OF DUC NOI AND 6.6 NM NORTH OF HA NOI

DESCRIPTION: AREA CONTAINS 25 DISPERSED BURIED TANKS. ATTEMPTS HAVE BEEN MADE TO CONCEAL TANKS BY PLANTING OVER THEM. SIXTEEN TRUCKS, 6 PROBABLY MODIFIED TO CARRY POL TANKS, ARE 0.2 NM EAST OF AREA.

ESTIMATED CAPACITY: TANK 300 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6174 II, 3D ED, APR 63 (U)
25X1D AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)



B39
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25X1

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25X1C

R-218/66

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 3)
WJ902366

UTM COORDINATES

2107N 10552E

GEOGRAPHIC COORDINATES



25X1C

B40

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CONFIDENTIAL

25X1

25X1

Approved For Release 2001/05/04 : CIA-RDP78B04560A005500010032-3
R-218/66
10-21-1966
25XIC [REDACTED]

R-218/66
Number 1966
23

25X1A

WJ897357
TM COORDINATES

2107N 10551E
GEOGRAPHIC COORDINATES

NAME: HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 4)

LOCATION: 1.2 NM SW OF DUC NOI AND 6.1 NM NORTH OF HA NOI

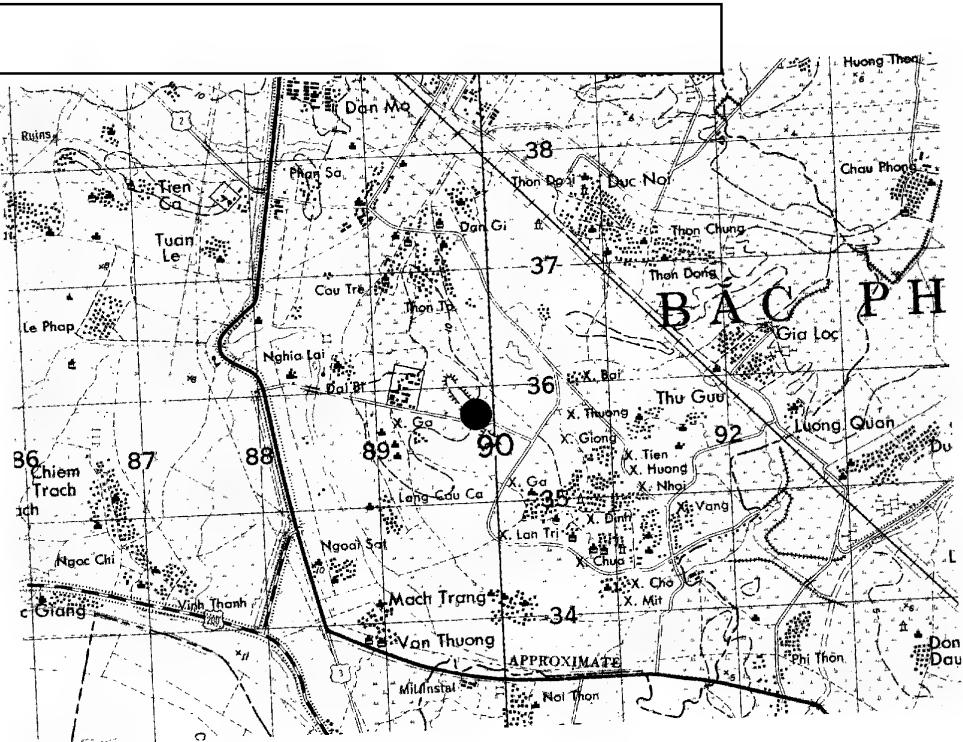
DESCRIPTION: PHOTOGRAPHY OF [REDACTED] REVEALS AT LEAST 6 BUNKERED TANKS AND 5 EXCAVATIONS ALONG TREE LINE IN SOUTH PORTION OF AREA. PHOTOGRAPHY OF [REDACTED] REVEALS AT LEAST 5 ADDITIONAL BUNKERED TANKS ALONG TREE LINE IN [REDACTED] [REDACTED] [REDACTED] OBSERVED ON [REDACTED]

EAST PORTION OF AREA; AREA OF BUILDINGS IS OBSCURED BY TREES.
ESTIMATED CAPACITY: TANK 132 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6174 II, 3D ED, APR 63 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

25X1

25X1D



1341

25X1C

Approved For Release 2003/08/26 : CIA-RDPB04A01274

25X1

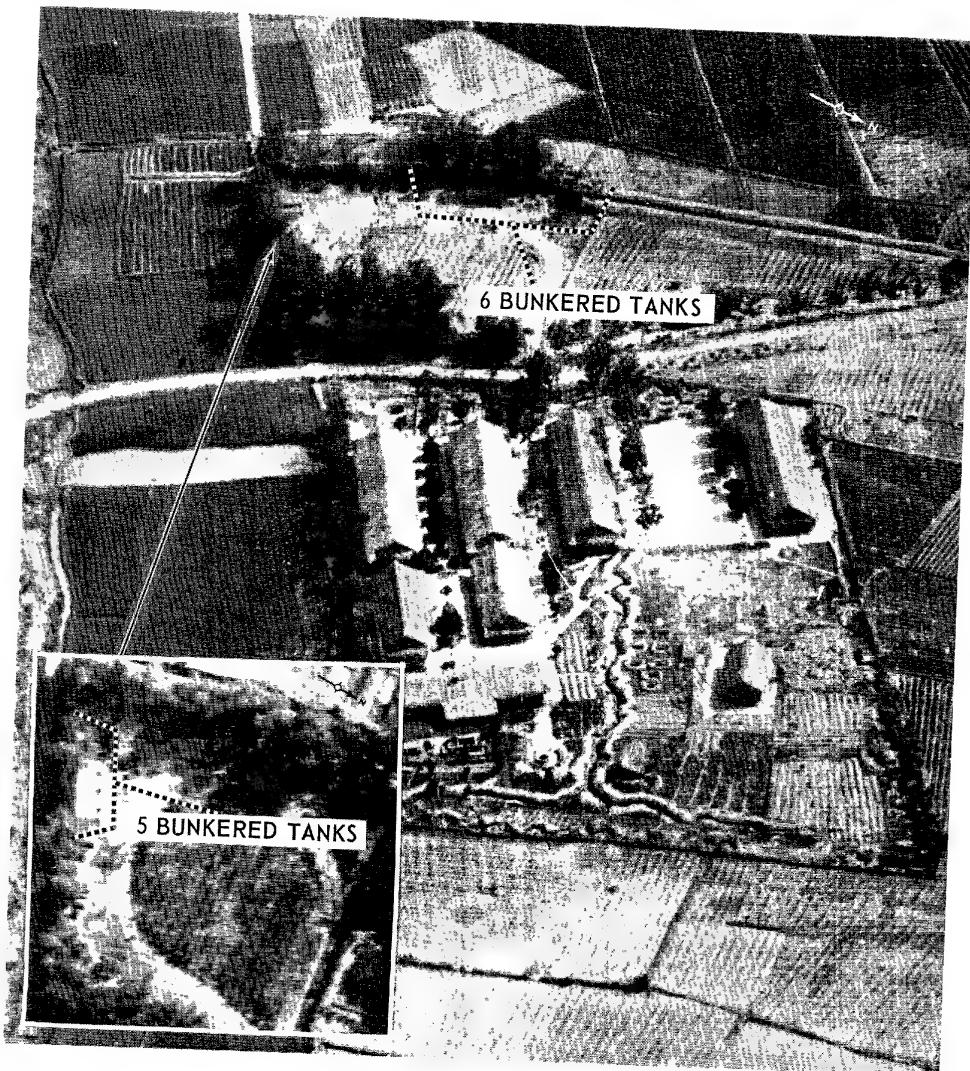
25X1

25X1C

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1 December 1966

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HA NOI PETROLEUM PRODUCTS STORAGE DUC NOT (AREA 4)
WJ897357
UTM COORDINATES 2107N 10551E
GEOGRAPHIC COORDINATES



25X1C

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B42

25X1

25X1

25X1C Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3
CONFIDENTIAL R-218/66
25X1D 10543E 1966

25X1D

25X1A

NAME: CU VAN PETROLEUM PRODUCTS STORAGE

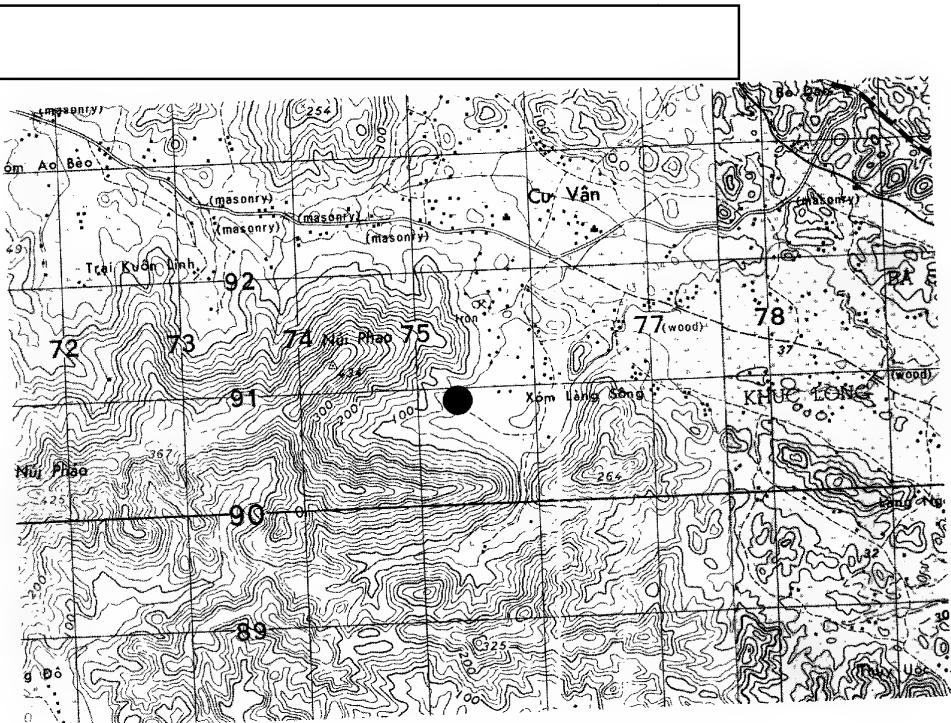
LOCATION: 125X1D OF CU VAN AND 7.1 NM NW OF THAI NGUYEN

DESCRIPTION: 94 LARGE BUNKERED TANKS ALONG LOOP ROAD. A PROBABLE LINK OF HOsing USED IN FUEL TRANSFER IS ALSO OBSERVED. CRATERS IN 3 AREAS WITH 7 TANKS DESTROYED.

25X1D

ESTIMATED CAPACITY: PRE-STRIKE TANK 2,350 MT POST-STRIKE TANK 2,175 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6175 IV, 1ST ED, SEP 63 (U)
AMS SERIES JQG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)



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25X1C

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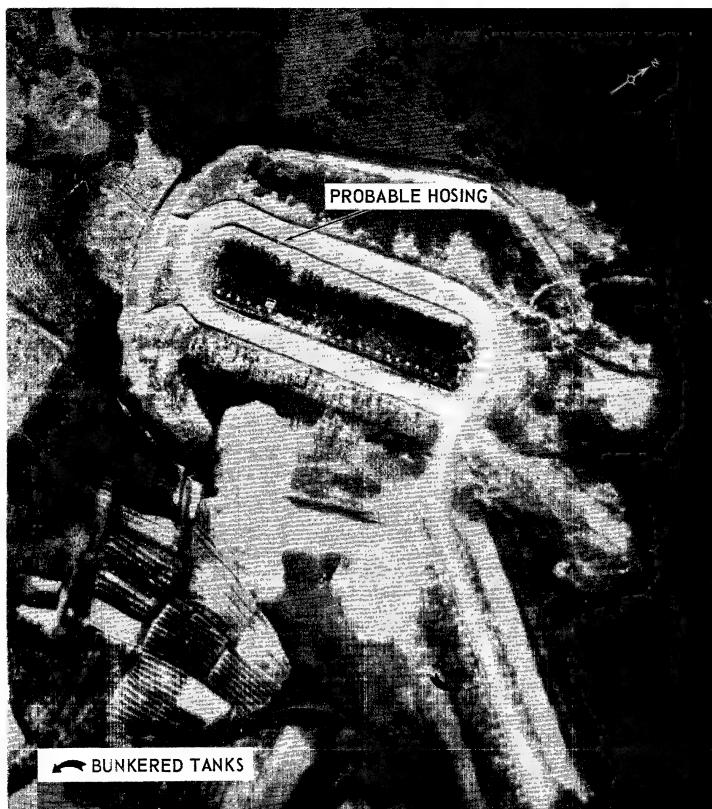
R-218/66
1 December 1966

25X1

WJ754908
UTM COORDINATES

CLU VAN PETROLEUM PRODUCTS STORAGE

2137N 10543E
GEOGRAPHIC COORDINATES



25X1C

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B44

25X1

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R-218-66
December 1966

25X1

25X1A

	WJ774926 UTM COORDINATES	2138N 10544E GEOGRAPHIC COORDINATES
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NAME: CU VAN PETROLEUM PRODUCTS STORAGE EAST UG

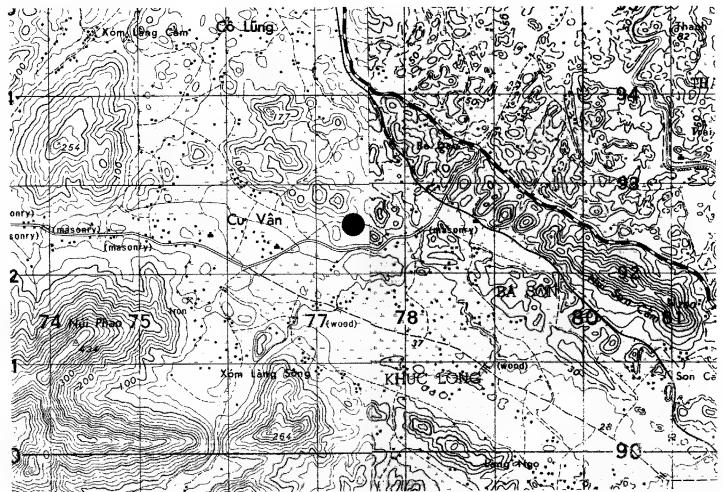
LOCATION: 0.6 NM EAST OF CU VAN AND 6.2 NM NW OF THAI NGUYEN

DESCRIPTION: AREA CONTAINS 52 LARGE BUNKERED TANKS ALONG A 0.2 NM SEGMENT OF A SECONDARY ROAD NORTH OF ROUTE 13A.

ESTIMATED CAPACITY: TANK 1,300 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6175-IV, 1ST ED, SEP 63 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

25X1D



25X1C

B45
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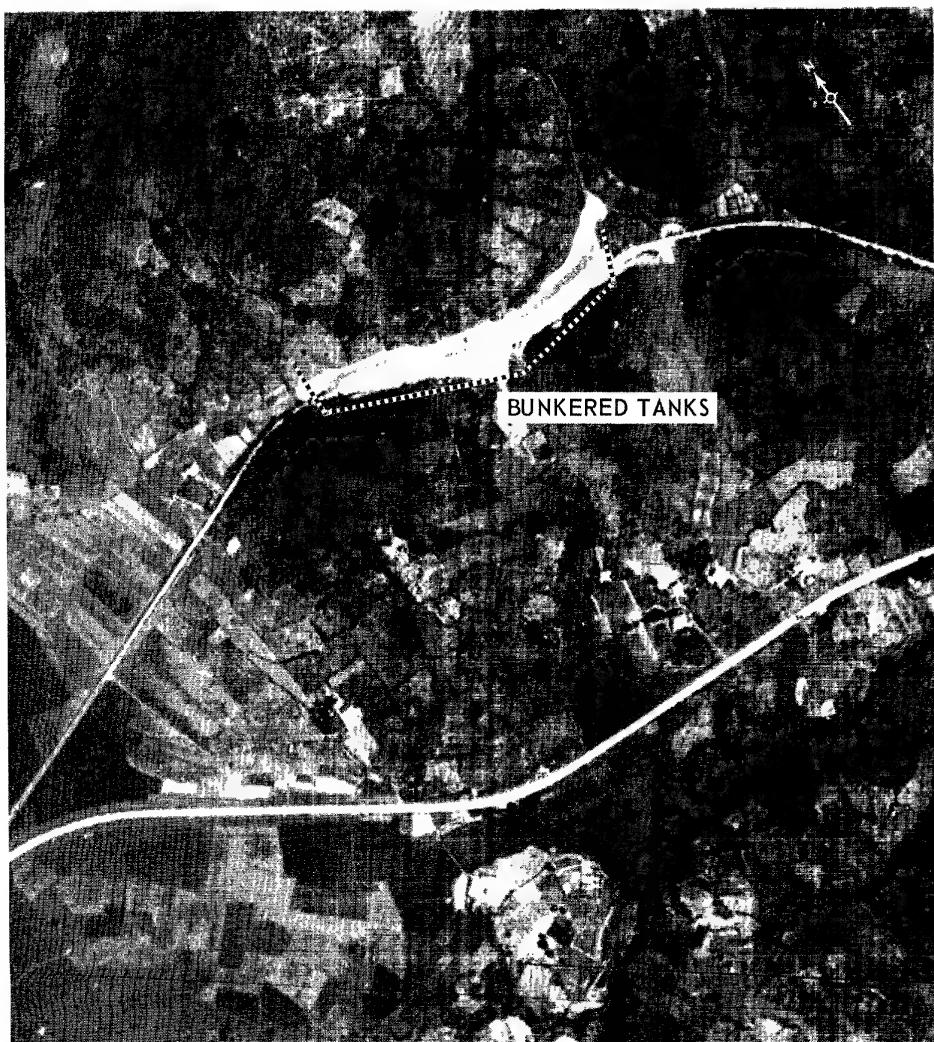
25X1

25X1

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CONFIDENTIAL

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CU VAN PETROLEUM PRODUCTS STORAGE EAST UG
WJ774926 2138N 10544E
UTM COORDINATES **GEOGRAPHIC COORDINATES**



25X1C

B46

Approved For Release 2008/07/04 :
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25X1

~~CONFIDENTIAL~~

Approved For Release 2003/08/24 :~~CHART 78B04560A005500010032-3~~

25X1

25X1C

R-218/66

25X1A

	XJ249708 UTM COORDINATES	2126N 10612E GEOGRAPHIC COORDINATES
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NAME: DAO QUAN PETROLEUM PRODUCTS STORAGE EAST

LOCATION: 0.1 NM EAST OF DAO QUAN ON SOUTH BANK OF SONG THUONG (RIVER)

25X1D

DESCRIPTION: STORAGE AREA

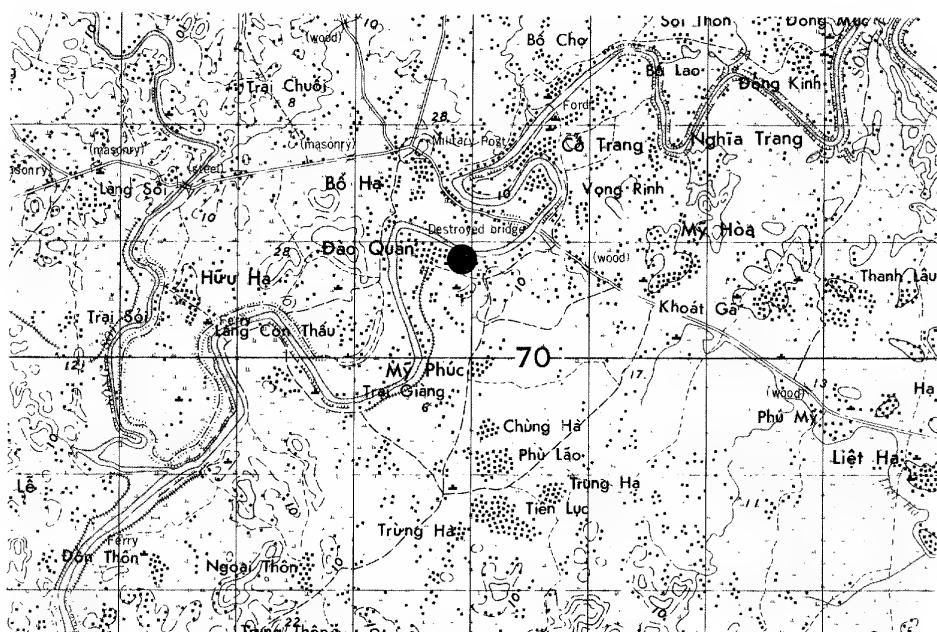
CONSISTS OF 28 BURIED TANKS, 6 CAMOUFLAGED ABOVEGROUND TANKS, 3 TANKS VISIBLE IN EXCAVATIONS, AND 1 OPEN EXCAVATION.

25X1D

ESTIMATED CAPACITY: TANK 444 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6275 III, 1ST ED, APR 64 (U)

25X1D AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)



25X1C

B47

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25X1

25X1

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

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R-218/66

BA DON POL STORAGE AREA

XE526634
UTM COORDINATES

1745N 10626E
GEOGRAPHIC COORDINATES



25X1C

B76
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25X1

IA-RDP78E
25X1C

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R-218/66
1 December 1966

25X1

25X1A

WF786702 1843N 10544E
UTM COORDINATES GEOGRAPHIC COORDINATES

NAME: PHUC LOI PETROLEUM PRODUCTS STORAGE NAVY

LOCATION: IMMEDIATELY WEST OF PHUC LOI NAVAL BASE AND 5.2 NM NE OF VINH

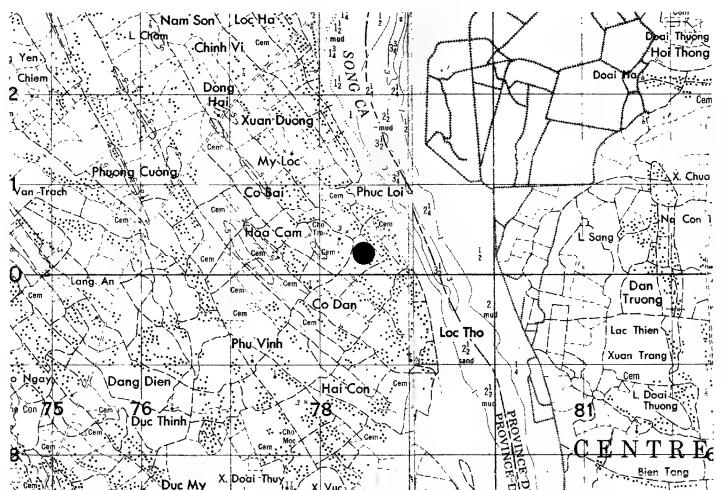
DESCRIPTION: FACILITY CONSISTS OF 2 POL BUNKERS, EACH APPROXIMATELY 60 X 20 FT AND EACH CONTAINING 6 LARGE HORIZONTAL TANKS. FACILITY HAS BEEN SUBJECTED TO STRIKE, BUT NO DAMAGE IS APPARENT TO TANKS; HOWEVER, UNDER-GROUND PIPING HAS BEEN DISRUPTED AND PUMP-HOUSE JUST EAST OF BUNKERS HAS BEEN DESTROYED.

ESTIMATED CAPACITY: TANK 300 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6167 III, 1ST ED, DEC 60 (U)
AMS SERIES JOG(G) 1501, SHEET NE 48-7, 1ST ED, JUN 65 (U)

25X1D

25X1A



25x16

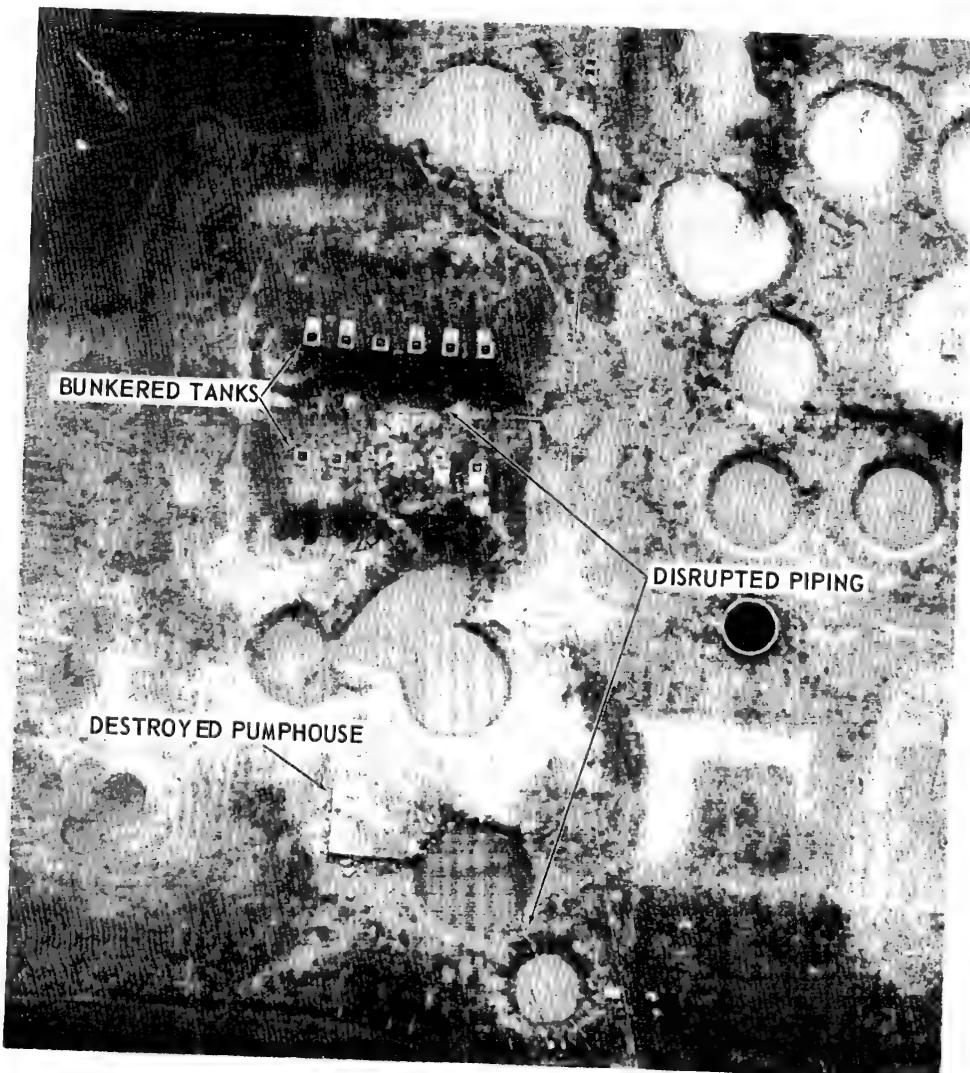
B77

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25X1

25X1C **CONFIDENTIAL** Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3 R-218/66
1 December 1966

PHUC LOI PETROLEUM PRODUCTS STORAGE NAVY
WF786702 UTM COORDINATES 1843N 10544E
GEOGRAPHIC COORDINATES



25X1C **CONFIDENTIAL** Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

25X1

25X1

25X1 Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

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R-218/66

25X1A

W661179
UTM COORDINATES
109N 10537E
GEOGRAPHIC COORDINATES

NAME: THO TRANG PETROLEUM PRODUCTS STORAGE

LOCATION: 0.5 NM EAST OF THO TRANG, ADJACENT TO THE TIANH HOA/VINH RAIL LINE

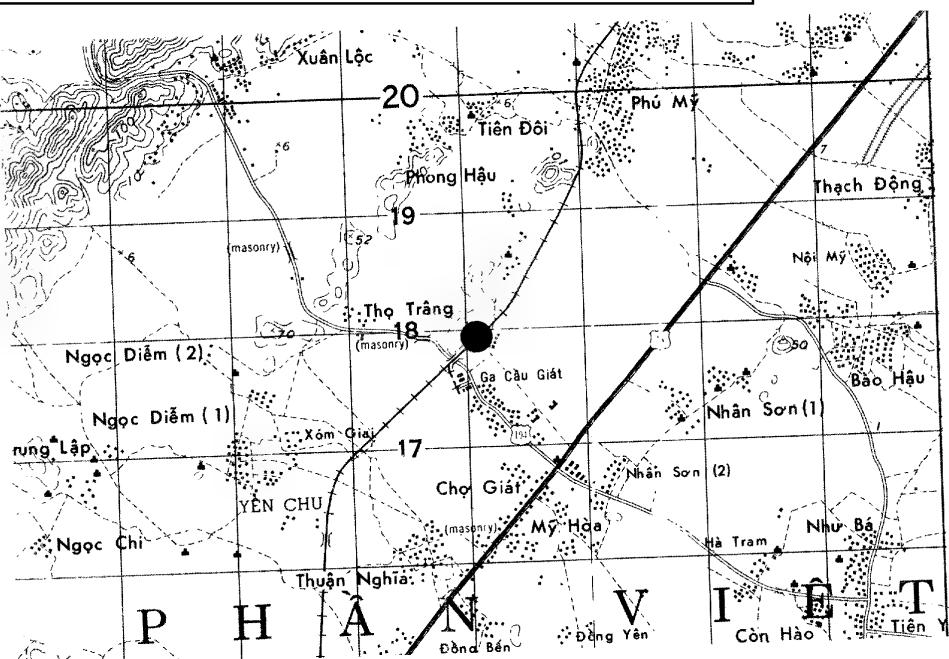
DESCRIPTION: PHOTOGRAPHY [REVEALS 6 BURIED TANKS (POSSIBLY ABANDONED) ON EAST SIDE OF RAIL LINE AND 18 BUNKERED TANKS ALONG A LOOP ROAD WEST OF RAIL LINE. PHOTOGRAPHY [REVEALS 4 OF THE BUNKERED TANKS IN THE WEST AREA DESTROYED AND 3 POSSIBLY DAMAGED. APPROXIMATELY 50 DRUMS ARE OBSERVED.]

ESTIMATED CAPACITY: PRE-STRIKE TANK 288 MT, POST-STRIKE TANK 240 MT

DRUM 10 MT
MAP REFERENCES: AMS SERIES L7014, SHEET 6147 III, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET NE 48-3, 1ST ED, JUN 65 (U)

25X1

25X1D



25X1C

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B79

25X1

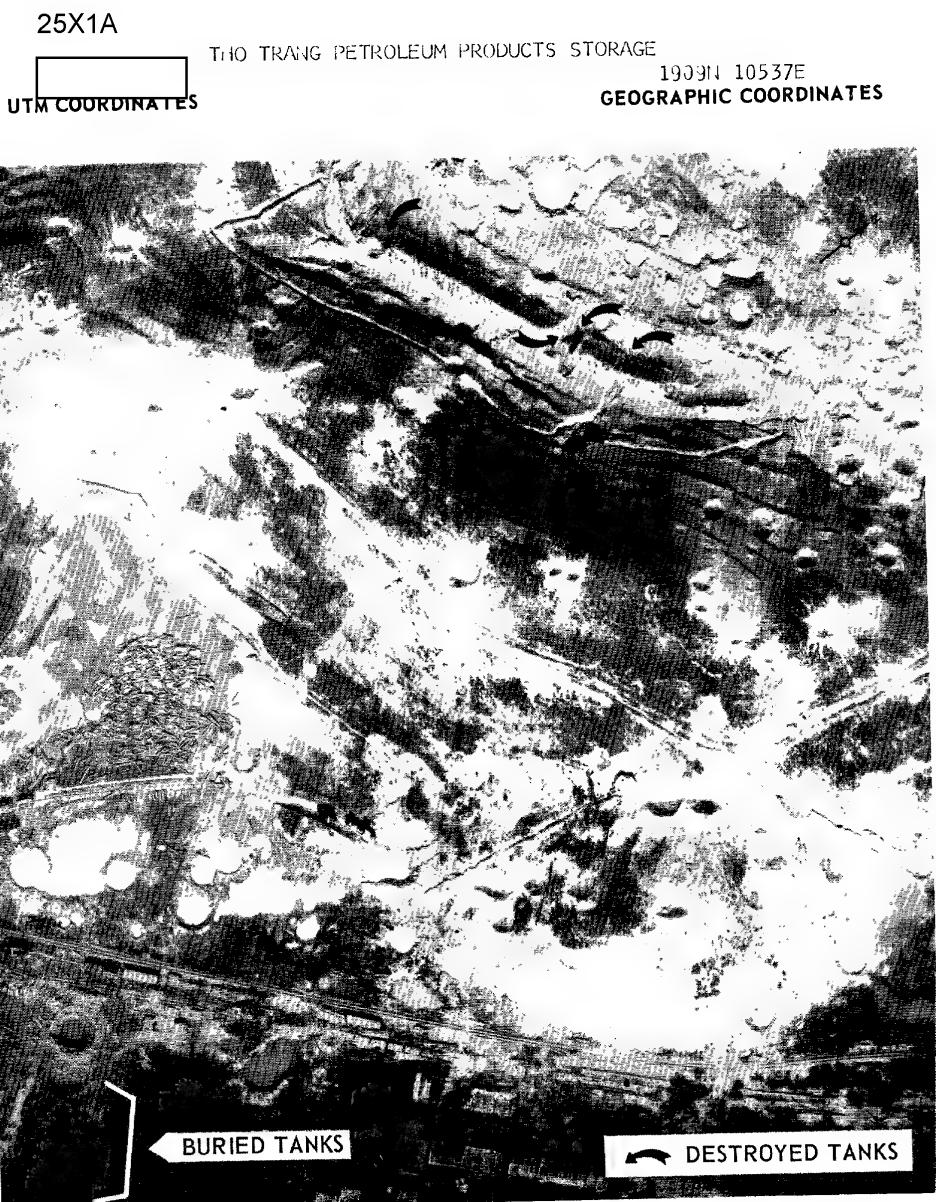
25X1

25X1C

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December 1966

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25X1C B80
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25X1

25X1C **CONFIDENTIAL**
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R-218/66

25X1A

	XH592964 UTM COORDINATES	2045N 10631E GEOGRAPHIC COORDINATES
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NAME: NINH GIANG PETROLEUM PRODUCTS STORAGE

LOCATION: 7.3 NM ENE OF NINH GIANG AND 10.8 NM SW OF HAI PHONG

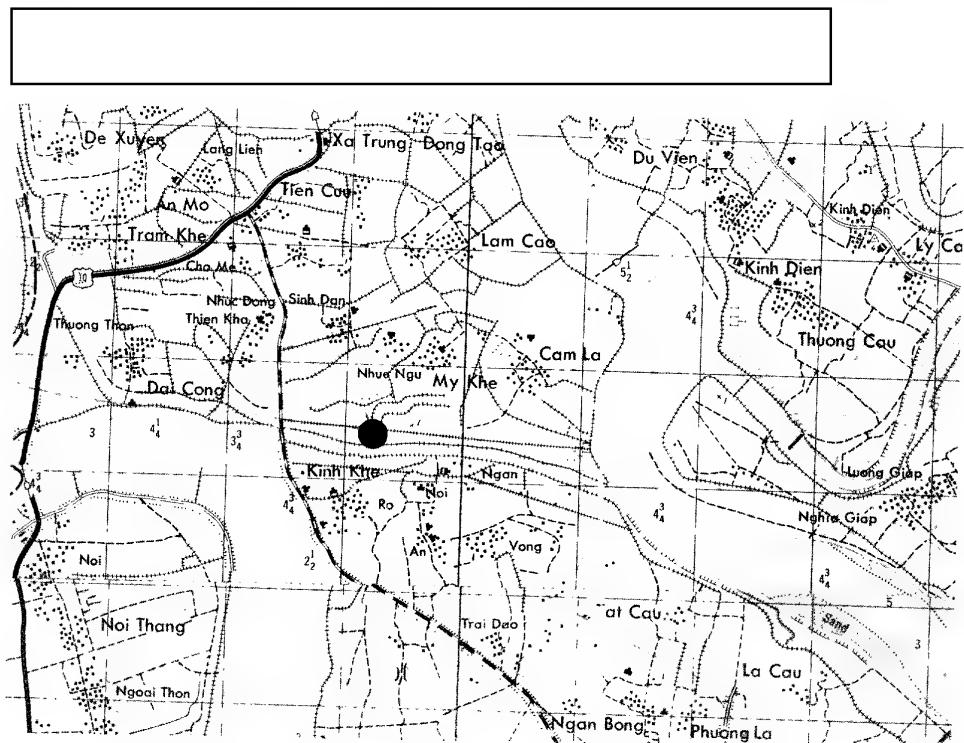
DESCRIPTION: AREA CONSISTS OF AT LEAST 13 PARTIALLY BURIED AND 14 BURIED POL TANKS ALONG THE NORTH BANK OF AN UNNAMED CANAL CONNECTING THE SONG VAN UC (RIVER) WITH THE SONG THAI BINH (RIVER). APEA IS SERVED BY A DRY-WEATHER ROAD. PHOTOGRAPH

25X1D

ESTIMATED CAPACITY: PRE-STRIKE TANK 321 MT

25X1D

MAP REFERENCES: AMS SERIES L7014, SHEET 635C IV, 1ST ED, 1965 (U)
25X1D AMS SERIES JOG(G) 1501, SHEET NF 48-16, 1ST ED. JUN 65 (U)



25X1

25X1C

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11 November 1966

WJ733457
UTM COORDINATES

PHUC YEN PETROLEUM PRODUCTS STORAGE

2112N 10542E

GEOGRAPHIC COORDINATES



25X1

25X1C

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25X1

25X1C **CONFIDENTIAL** Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3 R-218/66 December 1966

25X1A

	WF/19695 UTM COORDINATES	1843N 10540E GEOGRAPHIC COORDINATES
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NAME: VINH PETROLEUM PRODUCTS STORAGE NORT UG

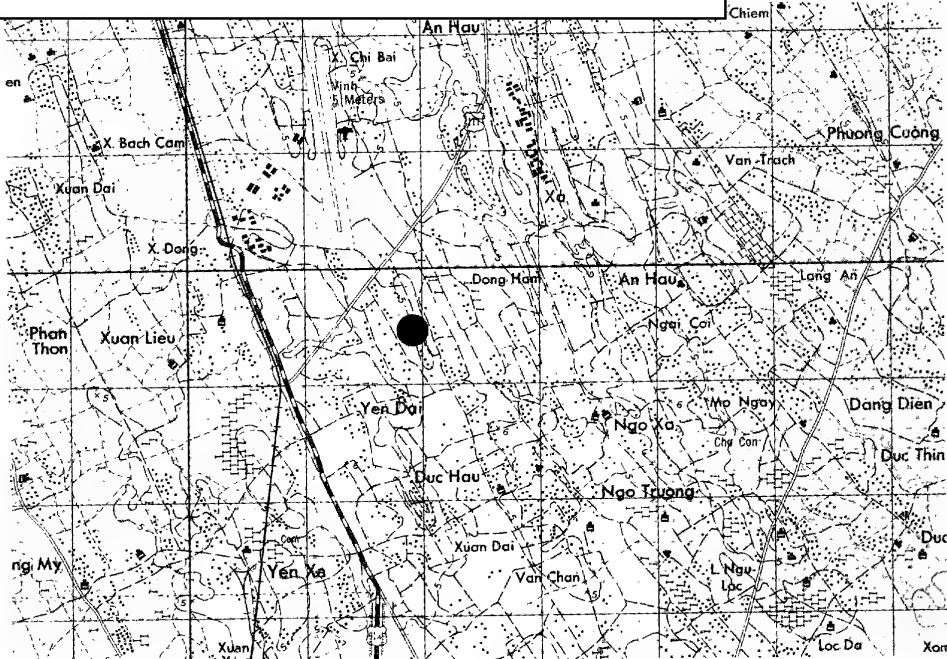
LOCATION: 0.8 NM WEST OF DONG NAM, 1 NM SSE OF VINH AIRFIELD, AND 3 NM NORTH OF VINH

DESCRIPTION: AREA CONTAINS 8 WIDELY DISPERSED BUNKERED TANKS ALONG TREE LINES.

ESTIMATED CAPACITY: TANK 36 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6146 III, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET NE 48-7, 1ST ED, JUN 65 (U)

25X1D



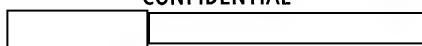
25X1C **CONFIDENTIAL** Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3 B155

25X1

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CONFIDENTIAL

25X1C

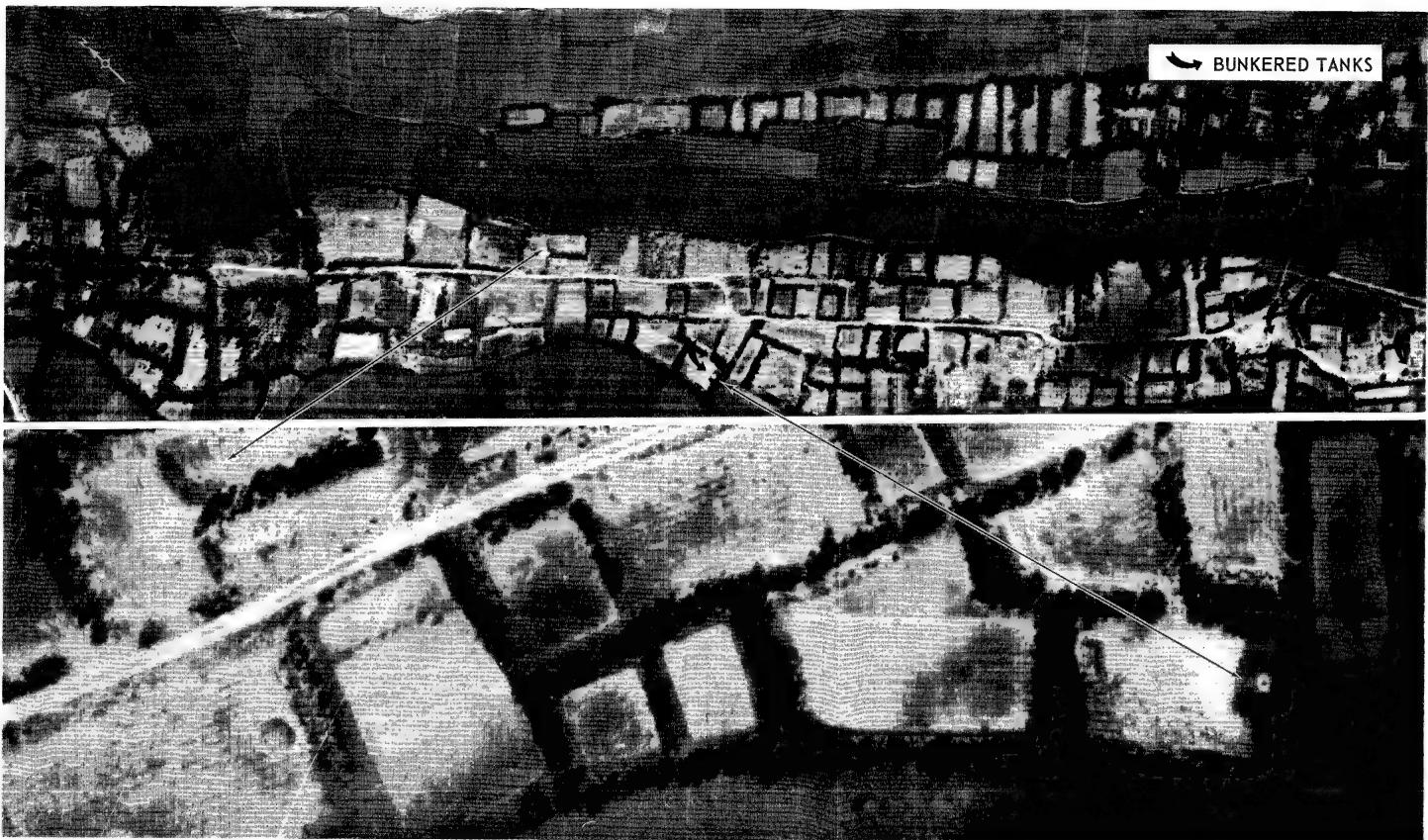


R-218/66
1 December 1966

WF719695
UTM COORDINATES

VINH PETROLEUM PRODUCTS STORAGE NORTH UG

1843N 10540E
GEOGRAPHIC COORDINATES



25X1C

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1 December 1966

25X1C

25X1

0616-
BE NUMBERWJ899346
UTM COORDINATES2106N 10551E
GEOGRAPHIC COORDINATES

NAME: MACH TRANG PETROLEUM PRODUCTS STORAGE

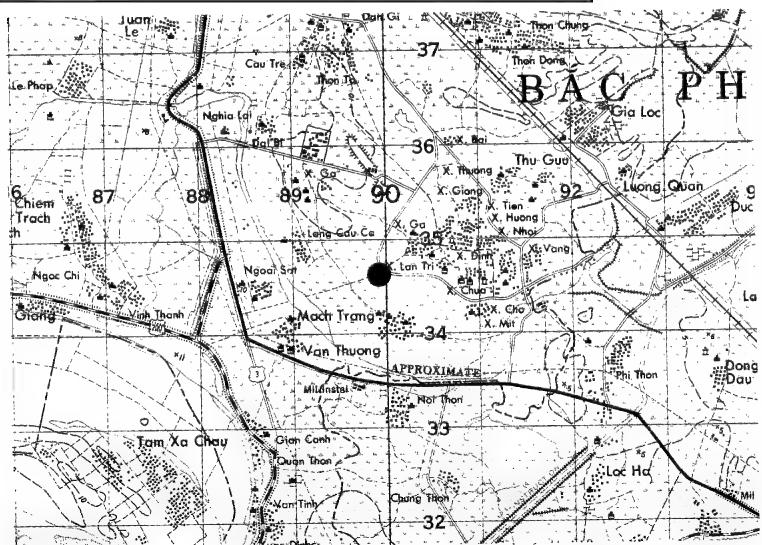
LOCATION: 0.3 NM NORTH OF MACH TRANG AND 2.1 NM NNE OF RED RIVER

DESCRIPTION: ROAD-SERVED AREA CONSISTS OF 4 LARGE AND 1 STANDARD-SIZE
BUNKERED TANK.

ESTIMATED CAPACITY: TANK 112 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6151 II, 1ST ED, 1964 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

25X1D



25X1C

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25X1

25X1

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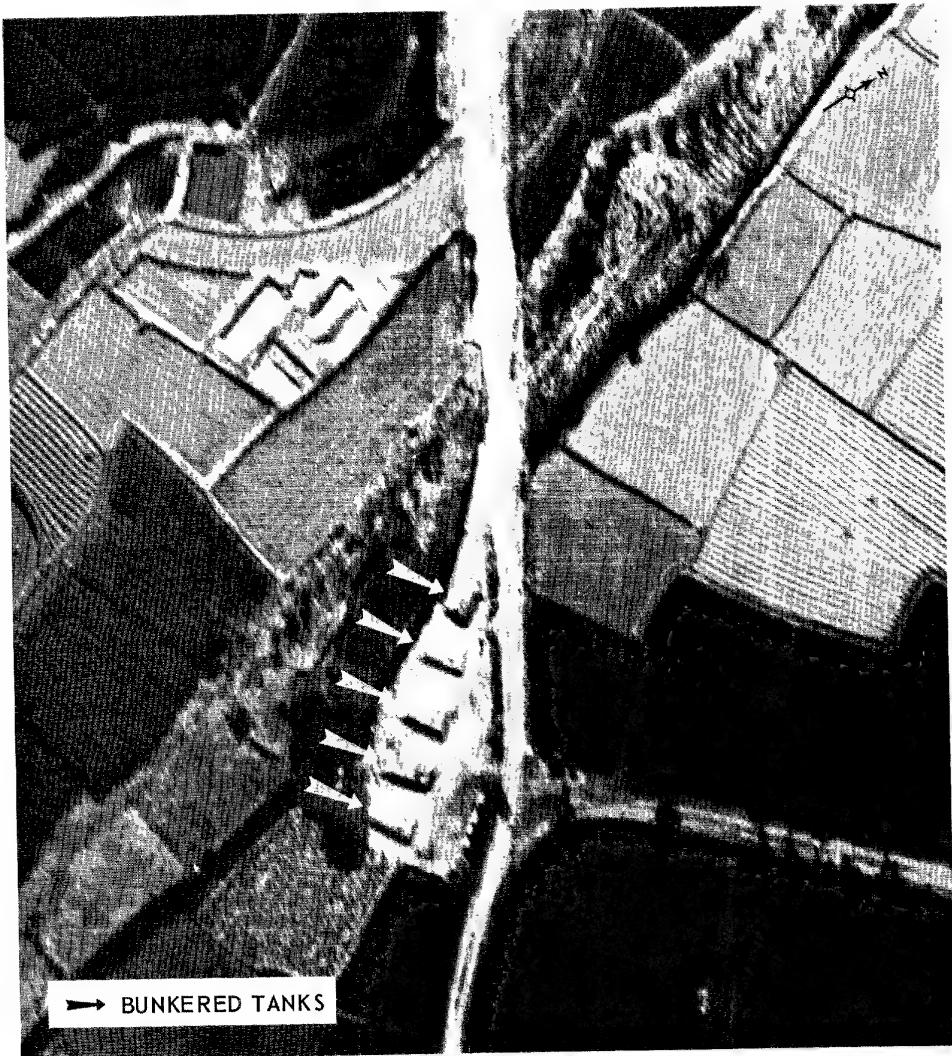
R-218/66

1 December 1966

MACH TRANG PETROLEUM PRODUCTS STORAGE

WJ899346
UTM COORDINATES

2106N 10551E
GEOGRAPHIC COORDINATES



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25X1

25X1

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1 December 1966

0616-
BE NUMBER

XJ646062
UTM COORDINATES

2051N 10635E
GEOGRAPHIC COORDINATES

NAME: TRAM BAC PETROLEUM PRODUCTS STORAGE

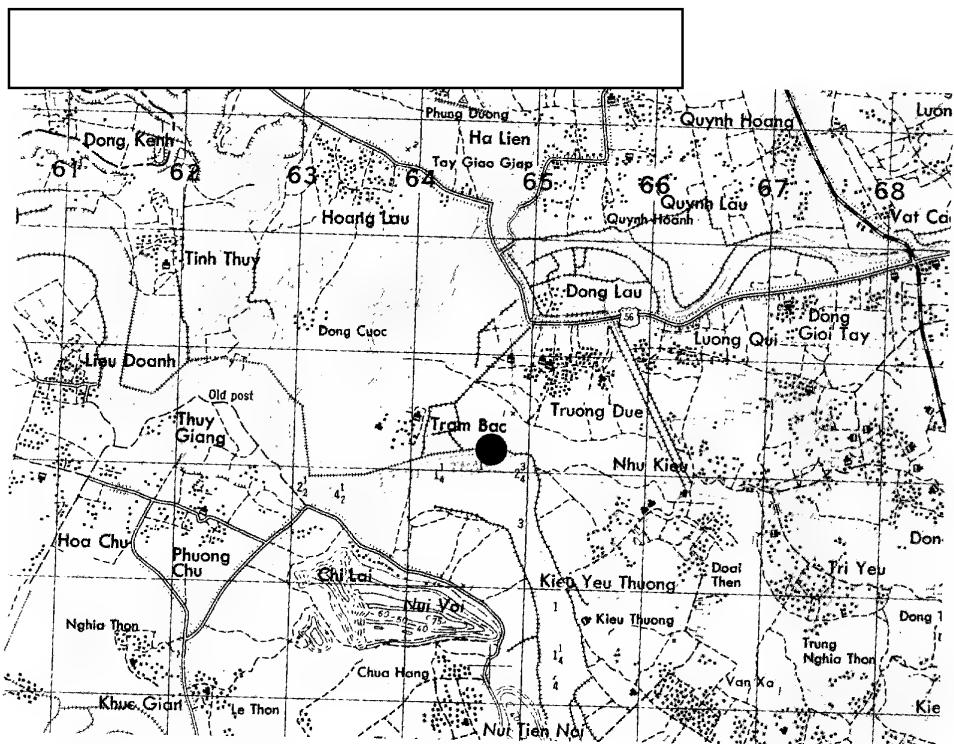
LOCATION: 0.4 NM ESE OF TRAM BAC, 5.7 NM WEST OF HAI PHONG, ON NORTH BANK OF THE LACH TRAY

DESCRIPTION: FENCE-SECURED, WATER-SERVED AREA CONSISTS OF 25 BUNKERS CONTAINING A TOTAL OF 50 LARGE TANKS. A POSSIBLE TANK IS IN THE WEST CORNER OF AREA.

ESTIMATED CAPACITY: TANK 1,275 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6350 IV, 1ST ED, 1965 (U)
AMS SERIES JOG(G) 1501, SHEET 48-16, 1ST ED, JUN 65 (U)

25X1D



B159

25X1C Approved For Release 2003/08/04 : GARDP78B04560A005500010032-3

CONFIDENTIAL

25X1

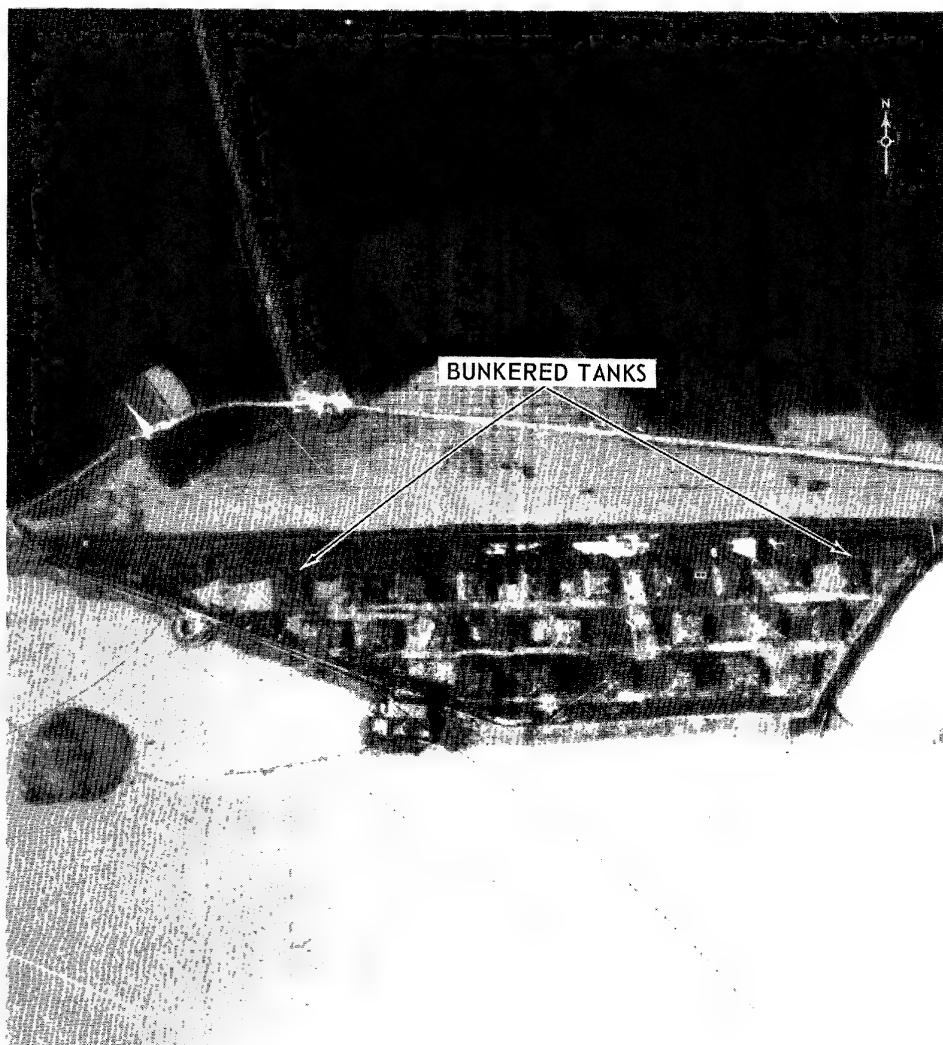
25X1

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25X1C Approved For Release 2003/08/04 : CIA RDP78B04560A0055000100823

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TRAM BAC PETROLEUM PRODUCTS STORAGE
XJ646062
UTM COORDINATES **GEO**

2051N 10635E
GEOGRAPHIC COORDINATES



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25X1C Approved For Release 2003/07/01 :**CONFIDENTIAL** : ADP78B04560A005500010032-3

25X1

25X1

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25X1C [redacted] December 1966

0616- BE NUMBER	XH350718 UTM COORDINATES	2032N 10617E GEOGRAPHIC COORDINATES
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NAME: NAM LO PETROLEUM PRODUCTS STORAGE

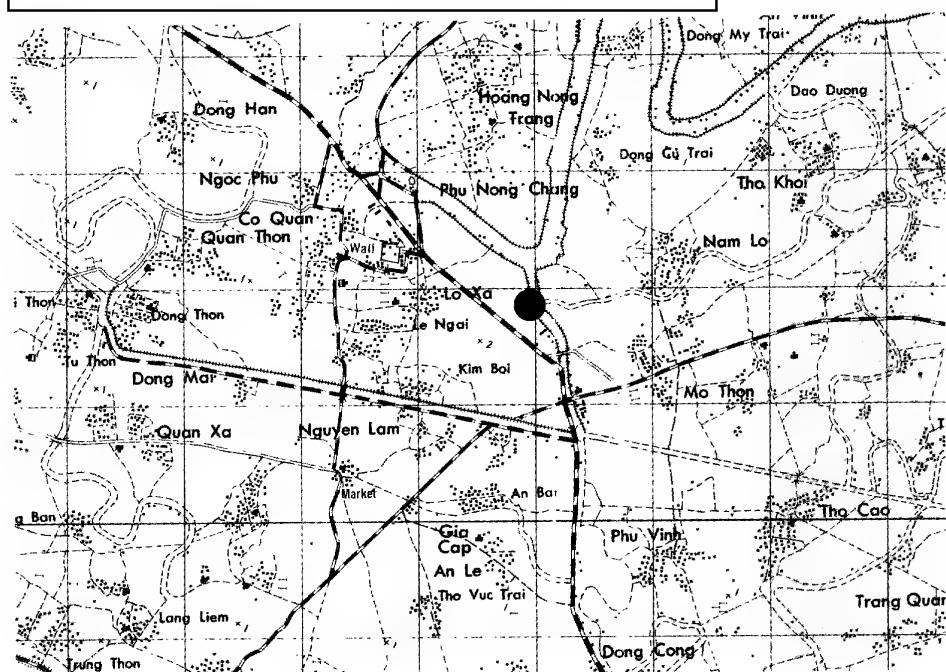
LOCATION: 0.6 NM WEST OF NAM LO AND 6 NM NNW OF THAI BINH

DESCRIPTION: WATER-AND ROAD-SERVED AREA CONTAINS 5 EARTHEN BUNKERS
EACH WITH 8 TANKS FOR A TOTAL OF 40 LARGE TANKS.

ESTIMATED CAPACITY: TANK 1,000 MT

MAP REFERENCES: AM'S SERIES L7014, SHEET 6250 II, 1ST ED, 1965 (U)
AM'S SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

25X1D



25X1C Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3
CONFIDENTIAL [redacted]

25X1

25X1

CONFIDENTIAL

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

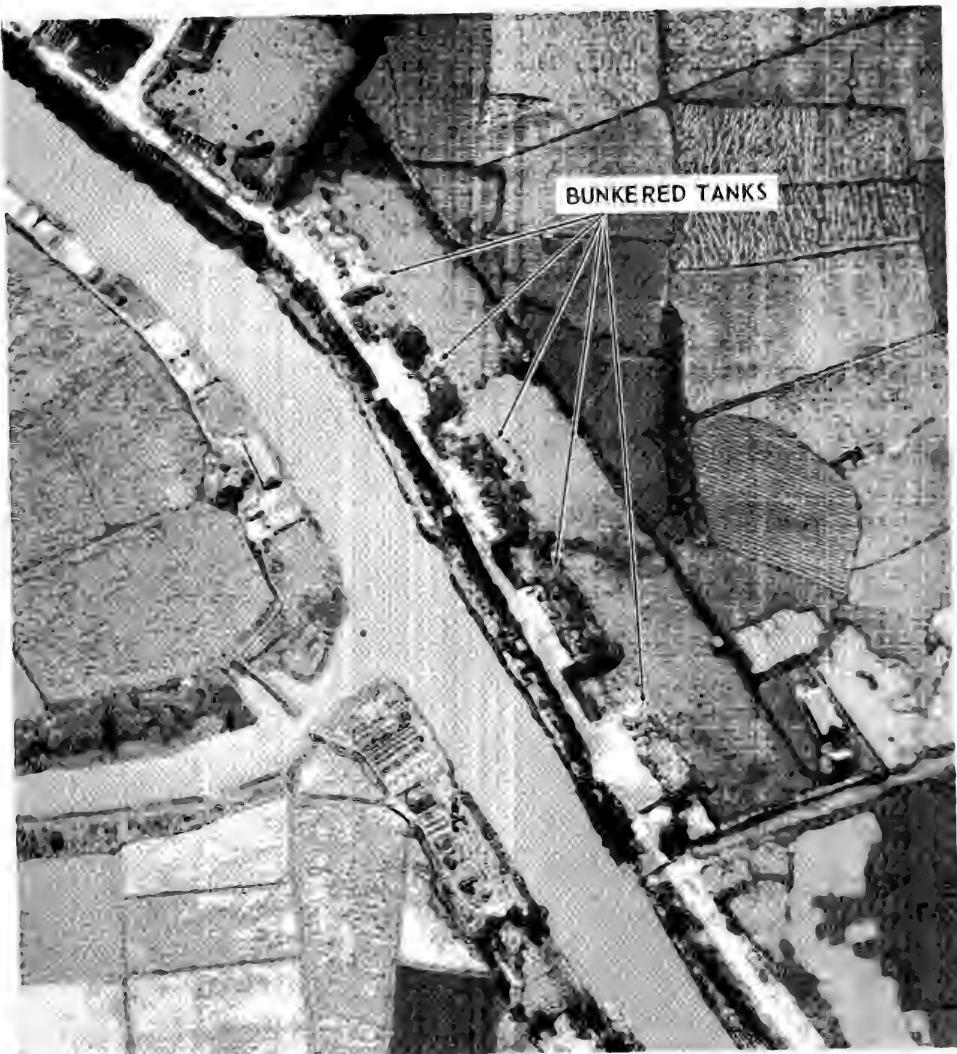
R-218/66

December 1966

NAM LO PETROLEUM PRODUCTS STORAGE

XH350718
UTM COORDINATES

2032N 10617E
GEOGRAPHIC COORDINATES



B162

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25X1C

25X1

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25X1C [redacted]
1 December 1966

0616 -
BE NUMBER

WJ899372
UTM COORDINATES

2108N 10551E
GEOGRAPHIC COORDINATES

NAME: Hanoi Petroleum Products Storage Duc NQi (Area 5)

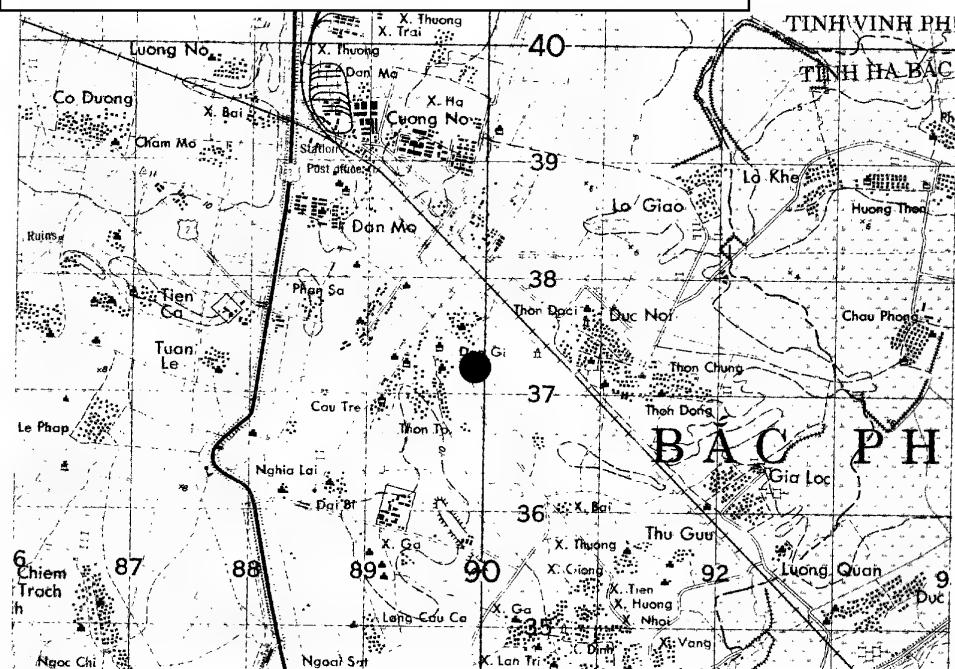
LOCATION: 0.5 NM WEST OF DUC NOI AND 6.8 NM NORTH OF HA NOI

DESCRIPTION: ROAD-SERVED AREA CONTAINS 9 LARGE AND 3 STANDARD BUNKERED TANKS.

ESTIMATED CAPACITY: TANK 261 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6151 I.I. 1ST ED, 1965 (U)
AMS SERIES N60(G) 1501, SHEET N48-11, 1ST ED, JUN 65 (U)

25X1D



25X1C Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

25X1

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Approved For Release 2003/03/04 : CIA-RDP78B04560A005500010032-3 R-218/66
1 December 1966

~~CONFIDENTIAL~~

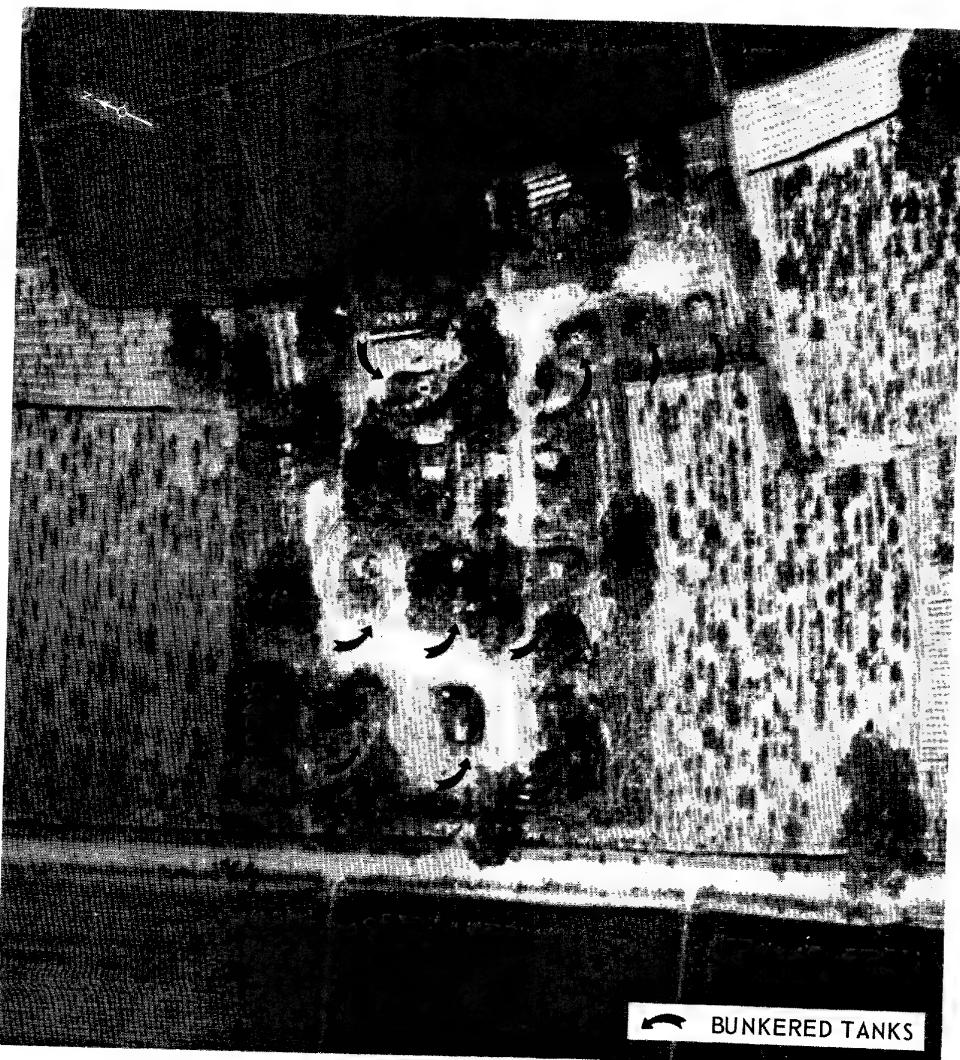
HANOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 5)

WJ899372

UTM COORDINATES

2108N 10551E

GEOGRAPHIC COORDINATES



25X1C

Approved For Release 2003/03/04 : CIA-RDP78B04560A005500010032-3

B164

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25X1C CONFIDENTIAL Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3 R-218/66
[redacted] December 1966

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25X1C

R-218/66

0616-
BE NUMBER

WU809323
UTM COORDINATES

2105N 10546E
GEOGRAPHIC COORDINATES

NAME: THUY PHUONG POL STORAGE TANKS

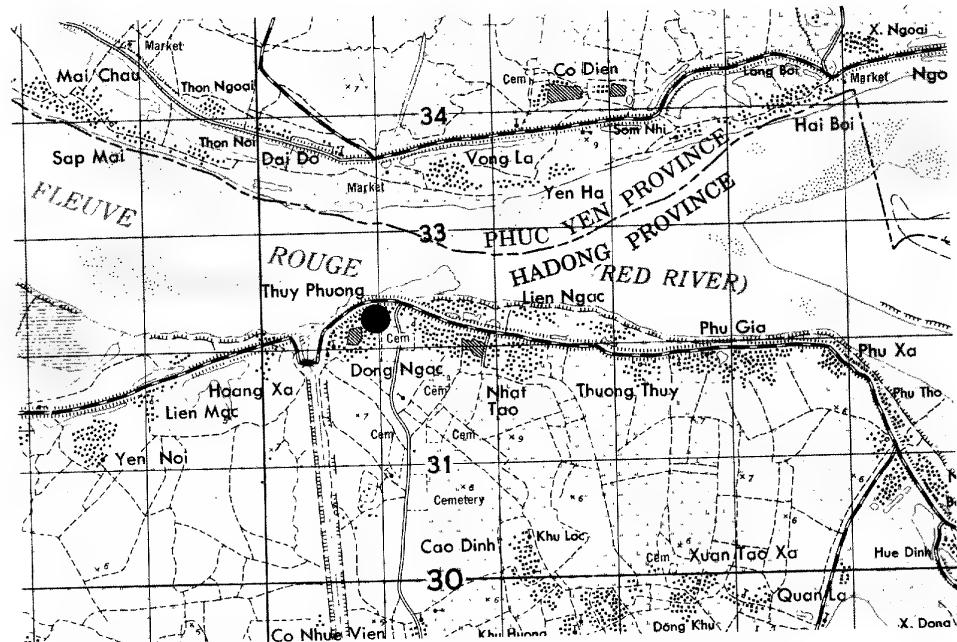
LOCATION: NE SECTION OF THUY PHUONG AND 5.3 NM NW OF HA NOI

DESCRIPTION: SITE CONTAINS A TOTAL OF 65 (55 STANDARD AND 10 LARGE) TANKS IN RANDOM STORAGE. THIRTY-SIX UNASSEMBLED TANK SECTIONS ARE ALSO OBSERVED. NO PERMANENT POL STORAGE FACILITY IS APPARENT AT THIS SITE.

ESTIMATED CAPACITY: NOT APPLICABLE

MAP REFERENCES: AMS SERIES L701, SHEET 6174 II, 3D ED, APR 63 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

25X1D



D1

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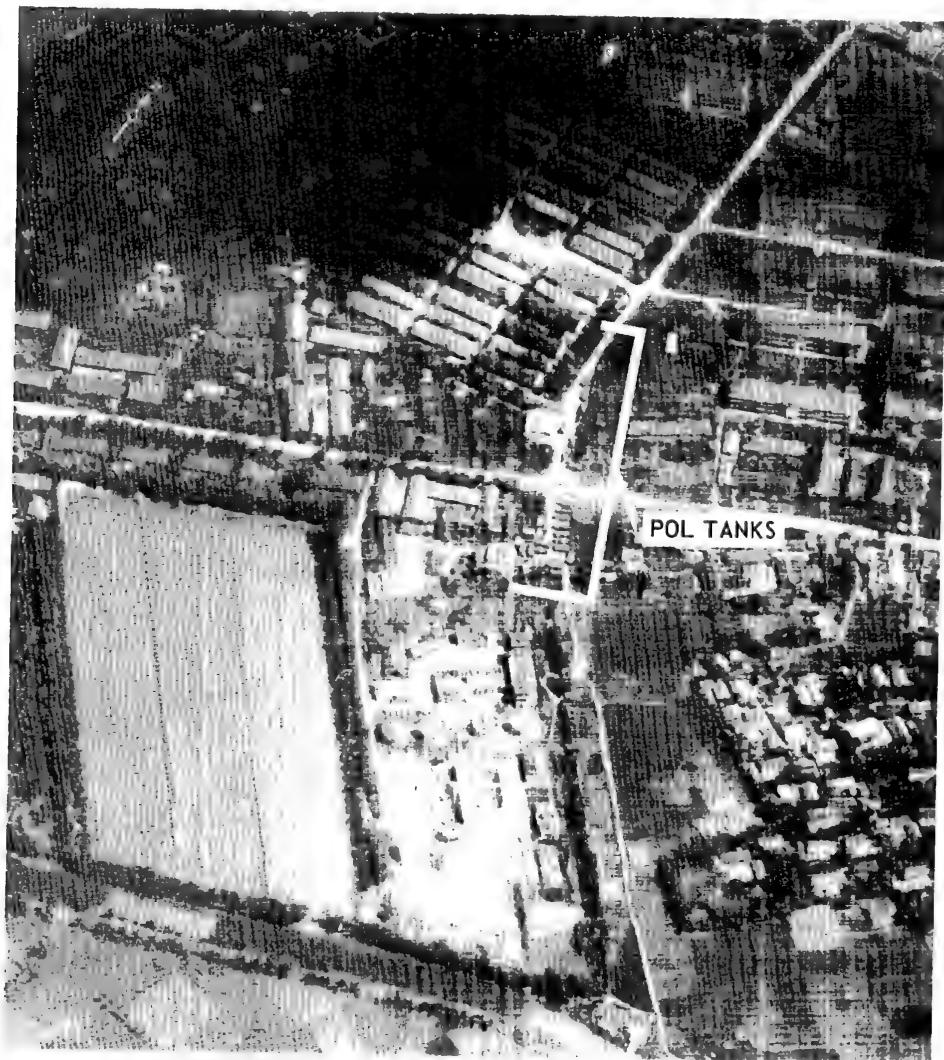
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R-218/66
10 November 1966

POL STORAGE TANKS HAI PHONG

XJ736058
UTM COORDINATES

2050N 10640E
GEOGRAPHIC COORDINATES



25X1C

F52

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25X1

25X1

CONFIDENTIAL R-218/66
25X1C Approved For Release 2005/06/04 : CIA-RDP78B04560A005500010032-0

R-218/66

0615- WJ852378 2108N 10549E
BE NUMBER UTM COORDINATES GEOGRAPHIC COORDINATES

NAME: POL STORAGE TANKS XOM DONG

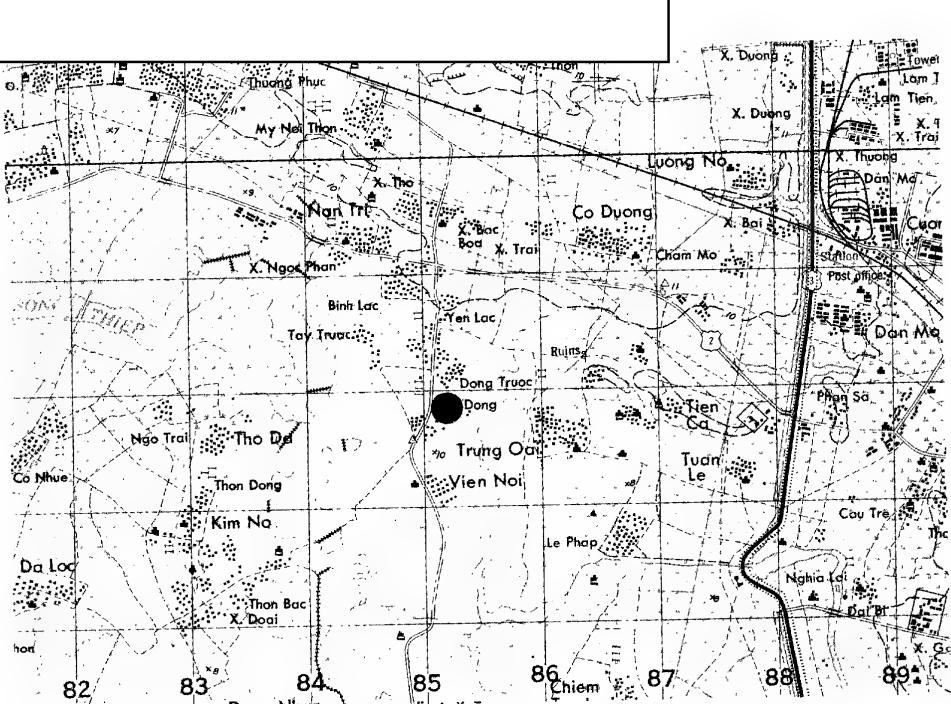
LOCATION: IMMEDIATELY NORTH OF XOM DONG AND 7.2 NM NW OF HA NOI

DESCRIPTION: AREA CONTAINS 44 LARGE TANKS (1 DAMAGED) IN STORAGE YARDS.

ESTIMATED CAPACITY: NOT APPLICABLE

MAP REFERENCES: AMS SERIES L7014, SHEET 6151 II, 1ST ED, 1964 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

25X1D



25X1G

D53

Approved For Release 2003/08/04 : CIA : CONFIDENTIAL : 68B04560A005500010032-3

25X1

25X1

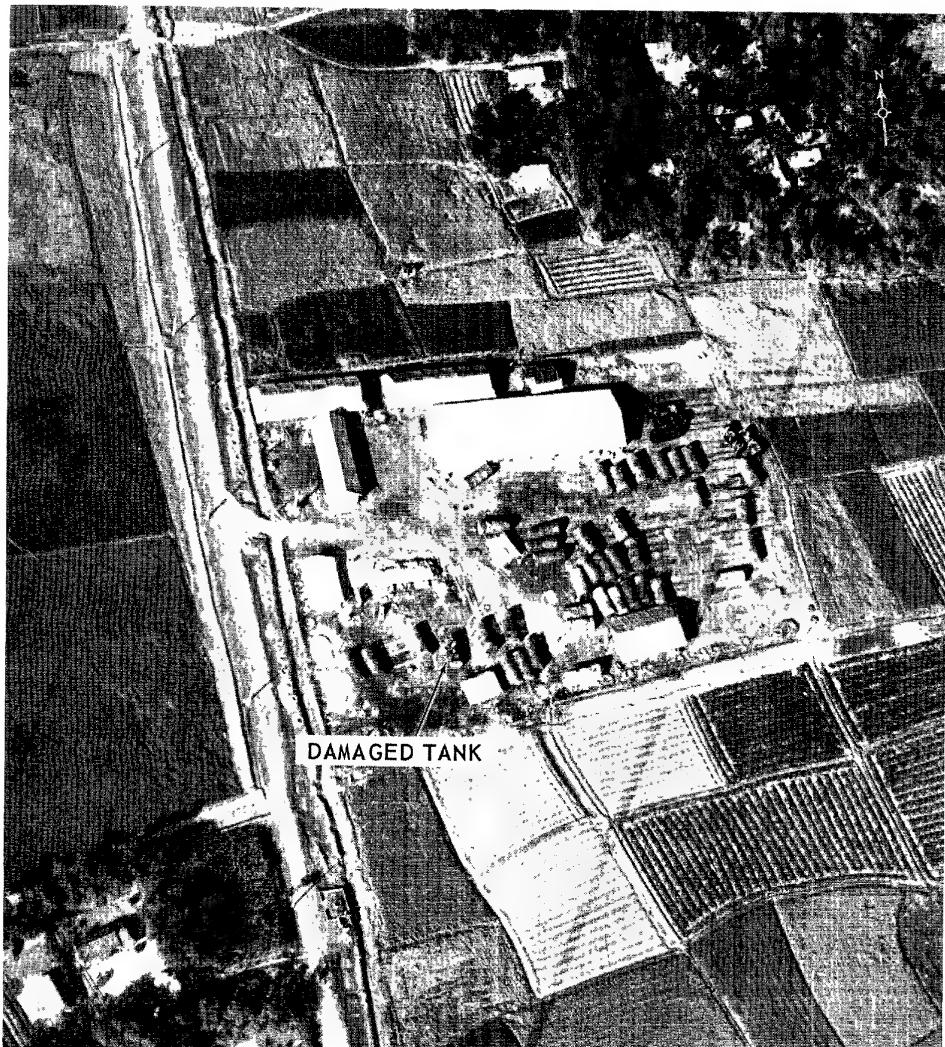
25X1C **CONFIDENTIAL** R-218/66
Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

W0852378
UTM COORDINATES

POL STORAGE TANKS XOM DONG

2108N 10540E

GEOGRAPHIC COORDINATES



25X1C **CONFIDENTIAL** D54
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25X1

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25X1C

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SECRET R-218/66

1 December 1966

VIET TRI PETROLEUM PRODUCTS STORAGE
JCS-51.14

WJ453547
UTM COORDINATES

25X1A

2117N 10526E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS IMMEDIATELY SOUTH OF VIET TRI, AT THE CONFLUENCE OF THE RED AND CLAIRE RIVERS, AND 28 NM NW OF HA NOI. PRIOR TO THE FIRST STRIKE IT CONTAINED 3 MEDIUM ABOVEGROUND TANKS, 2 MEDIUM UNDERGROUND CYLINDRICAL TANKS, AND 4 HORIZONTAL SERVICE TANKS. (THE LARGE TANK OBSERVED ON [REDACTED] PHOTOGRAPHY WAS REMOVED.) THE AREA IS SERVED BY ROAD AND RAIL AND MAY HAVE A SMALL BARGE LANDING NEARBY. IT HAD A PPE-STRIKE CAPACITY OF 1,670 MT IN TANKS, EXCLUSIVE OF UNDERGROUND TANKS.

THIS DEPOT IS A KEY TRANSSHIPMENT POINT FOR POL SUPPLY MOVEMENTS TO THE NW REGIONS. LOSS OF THIS FACILITY WOULD DISRUPT THE FLOW OF POL TO THE NW AND REMOVE A SIGNIFICANT TRANSSHIPMENT POINT BETWEEN THE NW REGIONS AND THE SOURCE OF SUPPLY AT HA NOI.

NINETEEN SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 17 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 46 ACTIVE SITES CONSISTING OF 116 OCCUPIED 37MM/57MM REVETMENTS AND 172 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 11 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE A PERIOD OF AT LEAST SEVERAL MONTHS. NORTH VIETNAM IS NOT KNOWN TO BE MANUFACTURING TANK COMPONENTS, APPROPRIATE STEEL TUBING, PIPING, PUMPS, OR OTHER ITEMS BASIC TO THE CONSTRUCTION OR MAINTENANCE OF POL STORAGE FACILITIES. THE EXISTING RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY. ALTHOUGH PREFABRICATED TANKS OF SOVIET DESIGN CAN BE INSTALLED AT A PREPARED SITE IN ABOUT A WEEK, IT APPEARS UNLIKELY THAT EITHER THE SOVIETS OR THE COMMUNIST CHINESE COULD PLACE ALL THE NECESSARY ELEMENTS TOGETHER IN LESS THAN 4 WEEKS.

BOMB DAMAGE ASSESSMENT

THIS TARGET WAS STRUCK FOR THE FIFTH TIME ON 4 SEPTEMBER 1966 BY 11 USAF AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 30/1000#GP AND 53/500#GP BOMBS.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-A1

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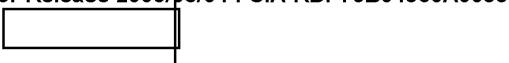
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R-218/66

25X1C



25X1

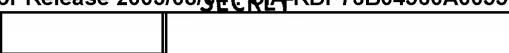
PHOTOGRAPHY [REDACTED] REVEALS 3 MEDIUM TANKS UNUSABLE DUE TO DIS-MANTLING, 1 UNDERGROUND TANK UNDAMAGED AND 1 WITH THE TOP SECTION UNCOVERED; AND 2 SERVICE TANKS DESTROYED, 1 DAMAGED, AND 1 UNDAMAGED. APPROXIMATELY 450 DRUMS (PROBABLY EMPTY) ARE STACKED NEAR THE TRANSSHIPMENT POINT. THE AREA HAS A PRESENT ESTIMATED CAPACITY OF 25 MT, EXCLUSIVE OF UNDERGROUND TANKS.

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X-A2

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25X1

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25X1C Approved For Release 2003/08/04: CIA-RDP78B04560A005500010032-3 R-218/66
[redacted] 1 December 1966
PHU [redacted]
[redacted] JCS-42

SECRET

25X1

WF344841
UTM COORDINATES

1851N 10519E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS ROAD-SERVED STORAGE AREA IS 2.3 NM ENE OF PHU VAN. PHOTOGRAPHY OF [redacted] REVEALED 14 BUNKERS, EACH WITH 6 POL TANKS; 3 TANKS IN EXCAVATIONS; AND 2 PRINCIPAL SUPPORT BUILDINGS. PRE-STRIKE CAPACITY WAS 1,000 MT.

THIS SITE IS STRATEGICALLY PLACED TO SUPPORT VIET CONG AND PATHET LAO FORCES DRAWING SUPPLIES FROM THE AREA, AS WELL AS REGULAR NORTH VIETNAMESE FORCES BASED ON PHU VAN.

FIVE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 5 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 9 ACTIVE SITES CONSISTING OF 38 OCCUPIED 37MM/57MM REVETMENTS AND 4 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 10 INACTIVE SITES IN THE AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

THIS FACILITY WILL PROBABLY NOT BE RESTORED WITHIN THE FORESEEABLE FUTURE.

BOMB DAMAGE ASSESSMENT

25X1

THE TARGET WAS STRUCK [redacted] BY 10 USAF AIRCRAFT, SUPPORTED BY 29 OTHER USAF AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 79/750#GP BOMBS.

25X1D ELEVEN OF THE 14 BUNKERS WERE DESTROYED. THE STATUS OF THE OTHER 3 COULD NOT BE CONFIRMED BECAUSE OF BLACK SMOKE WHICH OBSCURED THE AREA. OF THE 2 PRINCIPAL SUPPORT BUILDINGS, 1 WAS DESTROYED AND THE OTHER SEVERELY DAMAGED.

25X1D

[redacted] NOW APPEARS TO BE ABANDONED. THE SITE HAS NO STORAGE CAPABILITY AT THE PRESENT TIME.

25X1D

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X-A21

25X1C

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25X1

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1 December 1966

25X1

VINH PETROLEUM PRODUCTS STORAGE
JCS-50

25X1A

WF762644
UTM COORDINATES

1840N 10543E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

25X1

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THIS TARGET AREA IS ON THE NW BANK OF THE SONG CA (RIVER) AND 2.8 NM EAST OF VINH. PHOTOGRAPHY [REDACTED] REVEALED 3 LARGE, 5 MEDIUM, AND 6 SMALL VERTICAL ABOVEGROUND TANKS; 5 HORIZONTAL TANKS; AND 2 UNDERGROUND TANKS. PHOTOGRAPHY [REDACTED] REVEALED 8 PREVIOUSLY UNOBSERVED BUNKERED HORIZONTAL TANKS; 2 UNDERGROUND VERTICAL TANKS UNDAMAGED; 1 LARGE AND 1 MEDIUM TANK DAMAGED; AND 2 LARGE, 4 MEDIUM, 6 SMALL VERTICAL, AND 5 SERVICE TANKS DESTROYED.

PRIOR TO [REDACTED] THE TARGET WAS THE THIRD LARGEST POL STORAGE DEPOT IN THE COUNTRY WITH A CAPACITY OF 14,325 MT EXCLUSIVE OF 8 BUNKERED HORIZONTAL TANKS. THIS DEPOT PLAYED A KEY ROLE IN THE STAGING OF TRANSPORT/SUPPLY OPERATIONS INTO SOUTH VIETNAM OR LAOS. IF OPERATIONAL, THE BERTHING FACILITIES AT THIS DEPOT CAN ACCOMMODATE SMALL OCEAN-GOING OR COASTAL TANKERS IF FACILITIES AT HAI PHONG ARE LOST. THE DEPOT IS STRATEGICALLY LOCATED FOR STAGING OPERATIONS INTO SOUTH VIETNAM OR LAOS.

TWO SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 3 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM INCLUDES 22 ACTIVE SITES CONSISTING OF 39 OCCUPIED 37MM/57MM REVETMENTS AND 100 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 80 INACTIVE REVETMENTS IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

DAMAGE OBJECTIVE IS DESTRUCTION OF STORED POL. DAMAGE CRITERION IS RUPTURE OF STORAGE TANKS AND DISTORTION OF EXPOSED PIPING AND EQUIPMENT. FIRING OF SPILLED CONTENTS WILL ENHANCE DISABILITY.

THIS STORAGE SITE WILL PROBABLY NOT BE RESTORED IN THE FORESEEABLE FUTURE.

BOMB DAMAGE ASSESSMENT

THE TARGET WAS STRUCK FOR THE EIGHTH TIME ON 9 JUNE 1966 BY 8 USN AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 20/1000#GP BOMBS.

RESULTS OF THIS STRIKE WERE 5 SMALL TANKS DESTROYED AND 2 DAMAGED (1 SEVERE, 1 MODERATE), 5 SUPPORT BUILDINGS DESTROYED AND 5 DAMAGED (1 SEVERE, 2 MODERATE, 2 SUPERFICIAL), AND THE PIER WAS SUPERFICIALLY DAMAGED. OUTSIDE THE TARGET COMPLEX, 12 BUILDINGS WERE DESTROYED.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-A23

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SECRET

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SECRET CIA-RDP78B04560A005500010032-3 218/66
1 December 1966

25X1

CUMULATIVE STRIKE RESULTS INCLUDE 2 LARGE, 4 MEDIUM, AND 6 SMALL VERTI-
CAL ABOVEGROUND TANKS DESTROYED AND 1 LARGE AND 1 MEDIUM ABOVEGROUND TANK
SEVERELY DAMAGED. ALL 5 HORIZONTAL SERVICE TANKS ARE DESTROYED. TWO
UNDERGROUND CYLINDRICAL TANKS ARE UNDAMAGED, AS ARE 8 PREVIOUSLY UNOB-
SERVED BUNKERED HORIZONTAL TANKS. ESTIMATED CAPACITY IS NOW 1,600 MT.

X-A24

25X1C
Approved For Release 2003/06/04 :
SECRET CIA-RDP78B04560A005500010032-3

25X1

25X1A

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SECRET

SECRET

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25X1

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Dec 1966

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1 December 1966

25X1

CAN THON PETROLEUM PRODUCTS STORAGE
JCS-51.18

25X1A

XJ359660
UTM COORDINATES

[REDACTED]

2123N 10618E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS 0.8 NM NORTH OF CAN THON AND 2.2 NM EAST OF KEP AIRFIELD, ON THE NE SIDE OF ROUTE 181. THE FENCED, ROAD-SERVED AREA LIES AMONG 3 LOW HILLS. IT CONTAINS 120 LARGE BUNKERED TANKS IN 6 ROWS, AND 500 DRUMS IN THE NW PART OF THE AREA. ESTIMATED CAPACITY IS 3,000 MT IN TANKS AND 100 MT IN DRUMS.

THIS FACILITY COULD SERVE THE AIRFIELD AT KEP OR VIETNAMESE GROUND FORCES IN THE AREA, AS IT IS LESS THAN 2 MILES FROM THE RAIL LINE CONNECTING THE CHINESE TRANSSHIPMENT FACILITY AT PING-HSIANG WITH HA NOI, OR IT COULD SERVE AS A SMALL RESERVE BASE.

EIGHTEEN SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 18 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 34 ACTIVE SITES CONSISTING OF 147 OCCUPIED 37MM/57MM REVETMENTS AND 36 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 27 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

DAMAGE OBJECTIVE IS DESTRUCTION OF STORED POL. DAMAGE CRITERION IS Rupture of storage tanks and distortion of exposed piping and equipment. FIRING of spilled contents will enhance disability.

DESTRUCTION OF THIS FACILITY AND STOCKS ON HAND WOULD NOT CRITICALLY AFFECT THE NORTH VIETNAMESE. LOSS OF THE TANKS THEMSELVES WOULD PROBABLY BE THE MOST SERIOUS RESULT, AND REROUTING OF SUPPLIES WOULD BE REQUIRED.

RESTORATION OF THIS TARGET COULD BE ACCOMPLISHED VERY SOON, AS THE FACILITIES ARE NOT FIXED. RECOVERY TIME WOULD DEPEND ON THE AVAILABILITY OF SMALL TANKS TO REPLACE THOSE DAMAGED AND ON THE INCLINATION OF THE VIETNAMESE TO CONTINUE USE OF THE AREA FOR THIS PURPOSE.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B33

25X1C

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

SECRET

25X1

25X1

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 2)

25X1A

WJ906362
UTM COORDINATES

2107N 10552E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE AREA IS 1 OF 5 AREAS COLLOCATED AS A SINGLE TARGET COMPLEX. THE SITE IS ABOUT 0.7 NM SSW OF DUC NOI AND 6.4 NM NORTH OF HA NOI. WHEN OBSERVED ON PHOTOGRAPHY [REDACTED] THE AREA CONTAINED 4 LARGE BURIED AND 3 LARGE UNBURIED TANKS, 11 STANDARD BURIED AND 12 STANDARD UNBURIED TANKS, AND 7 LARGE AND 6 STANDARD EXCAVATIONS. PHOTOGRAPHY OF [REDACTED] REVEALS 13 LARGE BURIED, 39 STANDARD BURIED, AND 8 SMALL BURIED TANKS. TOTAL CAPACITY IS 849 MT. THE AREA IS SERVED BY SECONDARY ROADS.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVE AND/OR LOCAL DISTRIBUTION.

TWENTY-FIVE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 34 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 25 ACTIVE SITES CONSISTING OF 71 OCCUPIED 37MM/57MM REVETMENTS AND 67 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 18 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE ABOUT 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL, HORIZONTAL TANKS BUT MUST IMPORT THE VARIOUS COMPONENTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B37

25X1C

25X1

25X1C

SECRET

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3 R-218/66

25X1

December 1966

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 4)

25X1A

WJ897357
UTM COORDINATES

2107N 10551E

GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

25X1
THIS ROAD-SERVED STORAGE SITE IS 1 OF 5 AREAS COLLOCATED AS A SINGLE TARGET COMPLEX. IT IS ABOUT 1.2 NM SW OF DUC NOI AND 6.1 NM NORTH OF HA NOI. PHOTOGRAPHY [REDACTED] REVEALED AT LEAST 6 BUNKERED TANKS AND 5 EXCAVATIONS ALONG THE TREE LINE IN THE SOUTH AREA. PHOTOGRAPHY OF [REDACTED] [REDACTED] REVEALS AT LEAST 5 ADDITIONAL BUNKERED TANKS (OBSCURED ON THE EARLIER PHOTOGRAPHY) ALONG THE TREE LINE IN THE EAST AREA. TOTAL ESTIMATED CAPACITY IS 132 MT.

25X1

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

TWENTY-EIGHT SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 30 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 25 ACTIVE SITES CONSISTING OF 71 OCCUPIED 37MM/57MM REVETMENTS AND 67 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 18 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

25X1

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B41

25X1C

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

SECRET

25X1

25X1

~~SECRET~~

CU VAN PETROLEUM PRODUCTS STORAGE

25X1A

WJ754908
UTM COORDINATES2137N 10543E
GEOGRAPHIC COORDINATESPRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS 1 NM SSW OF CU VAN AND 7.1 NM NW OF THAI NGUYEN. PRIOR TO STRIKE IT CONTAINED 94 LARGE BUNKERED TANKS WITH AN ESTIMATED CAPACITY OF 2,350 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

NINE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 25 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. NO AAA ACTIVITY HAS BEEN IDENTIFIED WITHIN 3 NM OF THE TARGET. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

BOMB DAMAGE ASSESSMENT

THE TARGET WAS STRUCK FOR THE ELEVENTH TIME ON 17 SEPTEMBER 1966 BY 10 USAF AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 18/750#GP, 30/500#GP, AND 2/CBU-24 BOMBS.

25X1

PHOTOGRAPHY OF [REDACTED] REVEALS THAT 7 TANKS ARE PROBABLY DESTROYED AND CRATERS ARE PRESENT IN 3 AREAS. ESTIMATED POST-STRIKE CAPACITY IS 2,175 MT.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B43

25X1C

Approved For Release 2003/06/04: CIA-RDP78B04560A005500010032-3

~~SECRET~~

25X1

25X1C

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SECRET

R-218/66
1 December 1966

25X1

CU VAN PETROLEUM PRODUCTS STORAGE EAST UNDERGROUND

25X1A

WJ774926
UTM COORDINATES



2138N 10544E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS ROAD-SERVED STORAGE SITE IS 0.6 NM EAST OF CU VAN AND 6.2 NM NW OF THAI NGUYEN. IT CONTAINS 52 LARGE BUNKERED TANKS ALONG A 0.2-NM SEGMENT OF A SECONDARY ROAD NORTH OF ROUTE 13A. ESTIMATED CAPACITY IS 1,300 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

NINE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 24 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. NO AAA ACTIVITY HAS BEEN IDENTIFIED WITHIN 3 NM OF THE TARGET. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIR-CRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B45

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SECRET

25X1

25X1C

SECRET

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3-218/66

1 December 1966

25X1

PHUC LOI PETROLEUM PRODUCTS STORAGE NAVY

25X1A

WF786702
UTM COORDINATES

[REDACTED]

1843N 10544E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS IMMEDIATELY WEST OF PHUC LOI NAVAL BASE AND APPROXIMATELY 5.2 NM NE OF VINH. IT CONTAINS 2 BUNKERS 60' X 20', EACH PROBABLY CONTAINING 6 HORIZONTAL TANKS. THIS ROAD-SERVED SITE IS PART OF THE NAVAL BASE FACILITIES. IT HAS AN ESTIMATED CAPACITY OF 300 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

TWO SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 5 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 12 ACTIVE SITES CONSISTING OF 18 OCCUPIED 37MM/57MM REVETMENTS AND 45 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 42 INACTIVE SITES IN THE AREA. MODERATE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

BOMB DAMAGE ASSESSMENT

THE TARGET WAS STRUCK FOR THE SIXTH TIME ON 4 SEPTEMBER 1966 BY 12 USN AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 20/1000#GP AND 48/500#GP BOMBS.

25X1

PHOTOGRAPH [REDACTED] REVEALS NO DAMAGE TO TANKS; HOWEVER, UNDERGROUND PIPING HAS BEEN DISRUPTED AND A PUMPHOUSE JUST EAST OF THE BUNKERS IS DESTROYED.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B77

25X1C

SECRET

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25X1

~~SECRET~~

25X1C Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3 R218/66
1 December 1966

25X1

THO TRANG PETROLEUM PRODUCTS STORAGE

25X1A

WG661179
UTM COORDINATES



1909N 10537E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS FACILITY IS 0.5 NM EAST OF THO TRANG, ADJACENT TO THE THANH HOA - VINH RAIL LINE. PRIOR TO STRIKE, THE AREA CONTAINED 6 BURIED TANKS ON THE EAST SIDE OF THE RAIL LINE; WEST OF THE RAIL LINE WERE 18 BUNKERED TANKS ON A LOOP ROAD ON THE WEST SLOPE OF A HILL. APPROXIMATELY 50 DRUMS WERE ALONG THE RAIL LINE. ESTIMATED CAPACITY WAS 288 MT IN TANKS AND 10 MT IN DRUMS.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

THREE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 6 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM INCLUDES 3 ACTIVE SITES CONSISTING OF 4 OCCUPIED 37MM/57MM REVETMENTS. IN ADDITION, THERE ARE 17 INACTIVE SITES IN THE AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

BOMB DAMAGE ASSESSMENT

THE TARGET WAS STRUCK FOR THE EIGHTH TIME ON 20 SEPTEMBER 1966 BY 23 USN AIRCRAFT. ORDNANCE EXPENDED CONSISTED OF 4 BULLPUPS AND 28/1000#GP, 58/500#GP, AND 24/250#GP BOMBS.

25X1

PHOTOGRAPHY [REDACTED] REVEALS THAT 4 OF THE BUNKERED TANKS IN THE WEST AREA ARE DESTROYED AND 3 POSSIBLY DAMAGED. POST-STRIKE CAPACITY IS 240 MT IN TANKS AND 10 MT IN DRUMS.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B79

25X1C

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~~SECRET~~

25X1

25X1

25X1 Approved For Release 2003/07/04 : CIA-RDP78B04560A005500010032-3
SECRET R-218/66
1 December 1966

VINH PETROLEUM PRODUCTS STORAGE NORTH UNDERGROUND

25X1A

WF719695
UTM COORDINATES

1843N 10540E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE LIES 0.8 NM WEST OF DONG HAM, 1 NM SSE OF VINH AIRFIELD, AND 3 NM NORTH OF VINH. IT CONTAINS 8 WIDELY DISPERSED BUNKERED TANKS, WITH AN ESTIMATED CAPACITY OF 96 MT, ALONG TREE LINES.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

TWO SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 7 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 16 ACTIVE SITES CONSISTING OF 36 OCCUPIED 37MM/57MM REVETMENTS AND 53 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 63 INACTIVE SITES IN THE AREA. MODERATE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 1 WEEK WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

25X1C

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B155

Approved For Release 2003/07/04 : CIA-RDP78B04560A005500010032-3
[redacted]

25X1

SECRET

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

R-218/66
December 1966

25X1

25X1C

MACH TRANG PETROLEUM PRODUCTS STORAGE

WJ899346
UTM COORDINATES

2106N 10551E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS ROAD-SERVED STORAGE SITE, WHICH LIES 0.3 NM NORTH OF MACH TRANG AND 2.1 NM NNE OF THE RED RIVER, CONSISTS OF 1 STANDARD-SIZE BUNKERED TANK AND 4 LARGE TANKS WITH AN ESTIMATED CAPACITY OF 112 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

TWENTY-FIVE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 34 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 25 ACTIVE SITES CONSISTING OF 71 OCCUPIED 37MM/57MM REVETMENTS AND 67 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 18 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 1 WEEK WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B157

25X1C

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

SECRET

25X1

25X1C

SECRET

R-218/66
Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3
30 September 1966

25X1

TRAM BAC PETROLEUM PRODUCTS STORAGE

XJ646062
UTM COORDINATES

2051N 10635E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS ON THE NORTH BANK OF THE LACH TRAY (RIVER), 0.4 NM ESE OF TRAM BAC, AND 5.7 NM WEST OF HAI PHONG. THE FENCED AREA IS SERVED BY WATER AND CONSISTS OF 25 BUNKERS CONTAINING A TOTAL OF 50 LARGE TANKS, AND 1 LARGE ABOVEGROUND TANK IN THE WEST CORNER OF THE AREA. ESTIMATED CAPACITY IS 1,275 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

TWENTY-FOUR SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 10 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 12 ACTIVE SITES CONSISTING OF 19 OCCUPIED 37MM/57MM REVETMENTS AND 57 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 21 INACTIVE SITES IN THE AREA. SPARSE TO MODERATE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B159

25X1C

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

25X1

25X1C

Approved For Release 2003/08/04 : CIA-RDP78B04560A005500010032-3

SECRET

R-218/66
December 1966

25X1

NAM LO PETROLEUM PRODUCTS STORAGE

XH350718
UTM COORDINATES

2032N 10617E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS WATER- AND ROAD-SERVED STORAGE AREA IS 0.6 NM WEST OF NAM LO AND 6 NM NNW OF THAI BINH. THE FACILITY CONSISTS OF 40 LARGE TANKS, WITH 8 EACH EMPLACED IN 5 EARTHEN BUNKERS. CAPACITY IS 1,000 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVE AND/OR LOCAL DISTRIBUTION.

SIX SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 24 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. NO AAA ACTIVITY HAS BEEN IDENTIFIED WITHIN 3 NM OF THE TARGET. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE ABOUT 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL, HORIZONTAL TANKS BUT MUST IMPORT THE VARIOUS COMPONENTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

25X1C

X-B161

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25X1

25X1C

SECRET

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R-218/66
1 December 1966

25X1

HA NOI PETROLEUM PRODUCTS STORAGE DUC NOI (AREA 5)

WJ899372
UTM COORDINATES

2108N 10551E
GEOGRAPHIC COORDINATES

PRE-STRIKE TARGET DESCRIPTION

THIS ROAD-SERVED STORAGE AREA IS 1 OF 5 AREAS COLLOCATED AS A SINGLE TARGET COMPLEX. THE SITE IS 0.5 NM WEST OF DUC NOI AND 6.8 NM NORTH OF HA NOI. THE FACILITY CONTAINS 9 LARGE AND 3 STANDARD BUNKERED TANKS WITH A CAPACITY OF 261 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVE AND/OR LOCAL DISTRIBUTION.

TWENTY-FIVE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 34 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 25 ACTIVE SITES CONSISTING OF 71 OCCUPIED 37MM/57MM REVETMENTS AND 67 OCCUPIED 85MM/100MM REVETMENTS. IN ADDITION, THERE ARE 18 INACTIVE SITES IN THE AREA. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 1 WEEK WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL, HORIZONTAL TANKS BUT MUST IMPORT THE VARIOUS COMPONENTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B163

25X1C

SECRET

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25X1

ANNEX II

25X1A

Installation Name	Capacity	
	MT Water	MT POL
Viet Tri Petroleum Products Storage	25	21
Phuc Yen Airfield POL Storage Area	4,200	3,530
Phuc Yen Petroleum Products Storage NNE UG	11,800	9,910
Ha Noi Petroleum Products Storage Thanh Am	600	504
Nguyen Khe Petroleum Products Storage	5,925	4,977
Bac Giang Petroleum Products Storage	1,900	1,596
Nam Dinh Petroleum Products Storage	13,120	11,021
Hai Phong Petroleum Products Storage	48,348	40,612
Duong Nham Petroleum Products Storage	--	--
Do Son Petroleum Storage	1,700	1,428
Phu Van POL Storage	--	--
Vinh Petroleum Products Storage	1,600	1,344
Phu Qui Petroleum Products Storage	9,000	7,560
Ha Noi/Gia Lam Airfield POL Storage Area	850	714
La Danh Petroleum Products Storage PUG	2,359	1,982
Van Lung Petroleum Products Storage UG	352	295
Van Lung Petroleum Products Storage West UG	84	71
Hoang Mai POL Storage Area	300	252
Ha Noi Petroleum Products Thi Cam	468	393
Bai Thuong Petroleum Products Storage UG Southeast	756	635
Son La Petroleum Products Storage	384	323
Thuong Thon Petroleum Products Storage UG	456	383
Ngoc Son Petroleum Products Storage PUG	348	292
Thai Lai Petroleum Products Storage	120	101
Yen Ha Petroleum Products Storage PUG	396	333
Thanh Lang Petroleum Products Storage PUG	1,044	877
Ha Noi Petroleum Products Storage UG Thanh Liet (Area 1)	516	433
Ha Noi Petroleum Products Storage UG Thanh Liet (Area 2)	120	101
Bang So Petroleum Products Storage PUG	234	197
Son Chau Petroleum Products Storage PUG	336	282
Can Thon Petroleum Products Storage	3,100	2,604
Ha Noi Petroleum Products Storage Duc Noi (Area 1)	1,108	931
Ha Noi Petroleum Products Storage Duc Noi (Area 2)	849	713
Ha Noi Petroleum Products Storage Duc Noi (Area 3)	300	252
Ha Noi Petroleum Products Storage Duc Noi (Area 4)	132	111

25X1C

25X1

ANNEX II (Continued)

25X1A

BE No.	Installation Name	Capacity
		MT Water MT POL
	Cu Van Petroleum Products Storage	2,175 1,827
	Cu Van Petroleum Products Storage East UG	1,300 1,092
	Dao Quan Petroleum Products Storage East	444 373
	Dao Quan Petroleum Products Storage West	360 302
	Nam Dinh Petroleum Products Storage PUG	300 252
	Thai Nguyen Petroleum Products Storage PUG South	1,320 1,109
	Phuc Yen Airfield POL Storage Area 1	300 252
	Phuc Yen Airfield POL Storage Area 2	240 202
	Xom Duong Quan Petroleum Products Storage UG East	72 60
	Xom Duong Quan Petroleum Products Storage UG	43 36
	Nui Tap Tinh POL Storage Area	26.6 22.3
	Sac Le POL Storage Area	168 141
	Phu Dong POL Storage Area	420 352
	Thuan Le POL Storage Area	273 229
	Phuc Loc Petroleum Products Storage	156 131
	Thanh Iloa POL Storage Area	118 99
	Ba Don POL Storage Area	472 396
	Phuc Loi Petroleum Products Storage Navy	300 252
	Tho Trang Petroleum Products Storage	250 210
	Ninh Giang Petroleum Products Storage	324 272
	Viet Yen Petroleum Products Storage	1,440 1,210
	Kep Ha Petroleum Products Storage	96 81
	Tien Hoi Petroleum Products Storage	468 393
	Dong Mai Petroleum Products Storage	276 232
	Xom Lang POL Storage	312 262
	Van Hoa POL Storage	144 121
	Phu Lo Petroleum Products Storage NNE UG	228 192
	Jaune Island POL Storage	48 40
	Co Nhue Hoang POL Storage	180 151
	Quang Suoi Petroleum Products Storage	148 124
	Trung Phu Petroleum Products Storage	184 155
	Gia Hoa Petroleum Products Storage PUG	132 111
	Bai Chay Petroleum Products Storage	53 45
	Vinh Petroleum Products Storage Yen Thinh	132 111
	Ba Don Petroleum Products Storage UG West	99 83
	Bac Ninh Petroleum Products Storage	204 169
	Vinh Petroleum Products Storage PUG Xuan Yen	70 59

25X1C

25X1

~~SECRET~~

R-218/66

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December 1966

25X1

25X1C

ANNEX II (Continued)

25X1A

<u>Installation Name</u>	<u>Capacity</u>	
	<u>MT Water</u>	<u>MT POL</u>
Tri Binh Petroleum Products Storage	48	40
Thuong Lam Petroleum Products Storage	96	81
Cau Cong Petroleum Products Storage	384	323
Tung Tu Petroleum Products Storage UG	375	315
Don Son Petroleum Products Storage	744	625
Quy Khe Petroleum Products Storage	1,344	1,129
Tran Xa Petroleum Products Storage	1,250	1,050
Than Hoa Petroleum Products Storage	84	71
Tram Du Petroleum Products Storage	1,050	882
Luc Nong Petroleum Products Storage	720	605
Thai Nguyen Petroleum Products Storage	99	83
Tien Nong Petroleum Products Storage	420	353
Vinh Petroleum Products Storage PUG Ben Thuy	168	141
Chi Linh Petroleum Products Storage	1,728	1,452
Vinh Petroleum Products Storage PUG Yen Dai	72	60
Hoang Pha Petroleum Products Storage	240	202
Kien An POL Storage	288	242
Phu Thi Petroleum Products Storage	360	302
Phuc Yen Petroleum Products Storage	72	60
Vinh Petroleum Products Storage North UG	96	81
Mach Trang Petroleum Products Storage	112	94
Tram Bach Petroleum Products Storage	1,275	1,071
Nam Lo Petroleum Products Storage	1,000	840
Ha Noi Petroleum Products Storage Duc Noy (Area 5)	261	219

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Xom Lang POL Storage	1737N 10626E	B91, B92, X-B91
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Vinh Petroleum Products Storage Yen Thinh	1840N 10540E	B109, B110, X-B109
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Thuan Le POL Storage Area	1812N 10604E	B69, B70, X-B69
Ky Anh POL Drum Storage	1840N 10618E	C3, C4
Yen Hau Petroleum Products Storage PUG	1908N 10534E	B21, B22, X-B21
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